

HIGH-SPEED PASSENGER RAIL: HOW FAST WILL IT GET HERE?

HEARING

BEFORE THE

SUBCOMMITTEE ON SURFACE TRANSPORTATION
AND MERCHANT MARINE INFRASTRUCTURE,
SAFETY, AND SECURITY

OF THE

COMMITTEE ON COMMERCE,
SCIENCE, AND TRANSPORTATION
UNITED STATES SENATE

ONE HUNDRED ELEVENTH CONGRESS

FIRST SESSION

JUNE 23, 2009

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ONE HUNDRED ELEVENTH CONGRESS

FIRST SESSION

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CONTENTS

Hearing held on June 23, 2009	Page 1
Statement of Senator Lautenberg	1
Statement of Senator Thune	3
Statement of Senator Rockefeller	4
Prepared statement	5
Statement of Senator Hutchison	6
Prepared statement	7
Statement of Senator Udall	37
Statement of Senator Boxer	37
Letter, dated June 22, 2009, to Hon. Patty Murray and Hon. Christopher Bond—Transportation, Housing and Urban Development, Appropria- tions Committee from Hon. Barbara Boxer and Hon. John D. Rockefeller IV	43

WITNESSES

Hon. Edward G. Rendell, Governor, Commonwealth of Pennsylvania	8
Prepared statement	10
Hon. Joseph C. Szabo, Administrator, Federal Railroad Administration	12
Prepared statement	13
Joseph H. Boardman, President and Chief Executive Officer, Amtrak	16
Prepared statement	19
Hon. Robert Eckels, Chairman, Texas High-Speed Rail and Transportation Corporation	21
Prepared statement	24
Susan A. Fleming, Director Physical Infrastructure Issues, U.S. Government Accountability Office	25
Prepared statement	27
Tom R. Skancke, Commissioner, National Surface Transportation Policy and Revenue Study Commission	29
Prepared statement	31

APPENDIX

Response to written questions submitted to Hon. Edward G. Rendell by:	
Hon. John D. Rockefeller IV	47
Hon. Frank R. Lautenberg	47
Hon. Tom Udall	47
Hon. Kay Bailey Hutchison	48
Hon. John Thune	49
Response to written questions submitted to Hon. Joseph C. Szabo by:	
John D. Rockefeller IV	49
Hon. Frank R. Lautenberg	50
Hon. Tom Udall	50
Hon. Mark Warner	52
Response to written questions submitted to Hon. Joseph H. Boardman by:	
Hon. John D. Rockefeller IV	53
Hon. Frank R. Lautenberg	55
Hon. Tom Udall	57
Hon. Mark Warner	58
Response to written questions submitted to Susan A. Fleming by:	
Hon. John D. Rockefeller IV	59
Hon. Kay Bailey Hutchison	60
Hon. John Thune	62

IV

	Page
Response to written questions submitted to Tom R. Skancke by:	
Hon. John D. Rockefeller IV	64
Hon. Frank R. Lautenberg	64
Written question submitted to Hon. Robert Eckels by:	
Hon. John D. Rockefeller IV	64
Hon. Frank R. Lautenberg	65

HIGH-SPEED PASSENGER RAIL: HOW FAST WILL IT GET HERE?

TUESDAY, JUNE 23, 2009

U.S. SENATE,
SUBCOMMITTEE ON SURFACE TRANSPORTATION AND
MERCHANT MARINE INFRASTRUCTURE, SAFETY, AND SECURITY,
COMMITTEE ON COMMERCE, SCIENCE, AND TRANSPORTATION,
Washington, DC.

The Subcommittee met, pursuant to notice, at 2:34 p.m. in room SR-253, Russell Senate Office Building, Hon. Frank R. Lautenberg, Chairman of the Subcommittee, presiding.

OPENING STATEMENT OF HON. FRANK R. LAUTENBERG, U.S. SENATOR FROM NEW JERSEY

Senator LAUTENBERG. Sorry, the train was a little late in getting here.

Thank you, Mr. Chairman. Among chairmen here, he's the Chair. Thank you all for being here, and my apologies for being a couple of minutes off target.

What we'll try to do, in order to expedite things, is limit opening statements to the three Senators in attendance, make them short, and we'll ask the other members who may come to include their opening statement in the record, or in their question period. We're going to work in 5-minute cycles.

I will start by, once again, thanking you all for being here. The roles you play are very important, and we're pleased to have a chance to talk to you.

This hearing comes to order.

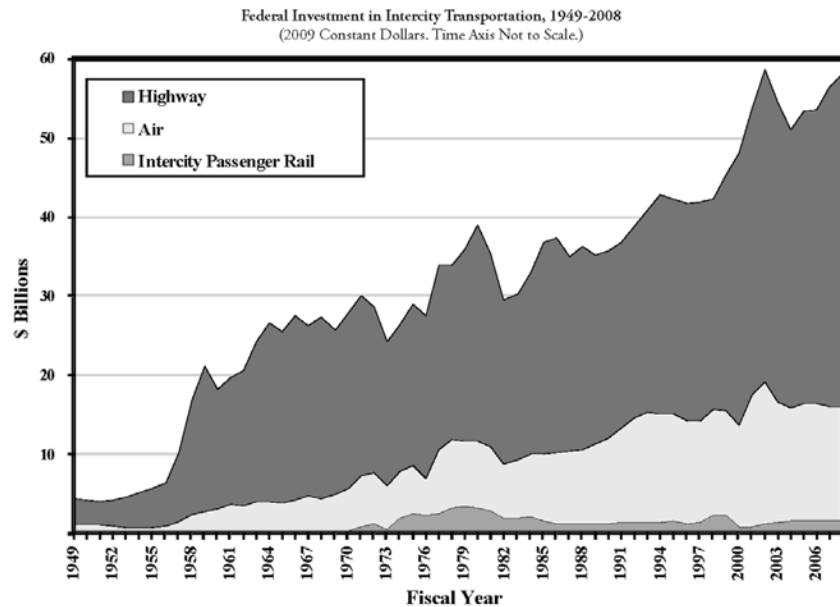
We gather here at a rather sad moment. Many lives were lost with the crash of the Metro, and there are numbers still to be computed of those who not only perished, but those who were wounded. What it tells us, as we see the confusion and the effort that has followed, is how important the use of the Metro transit system is.

For the last few years, we look and we see Amtrak, because we're talking now about intercity rail, but we can't ignore the contribution that transit rail makes.

The last few years, we've seen Amtrak break ridership records year after year. In 2008, Amtrak's ridership hit more than 28 million riders, marking the sixth straight year of gains. These gains prove two important points. It establishes the fact that people are sick and tired of waiting in traffic, standing in line at the airport, inhaling dangerous emissions, and just waiting indefinitely for their travel mechanism to be there. If we provide convenient and reliable rail service, Americans will choose it.

Second, these gains prove that this time cries out for major investment in high-speed rail. We need to fill a rising demand for faster and more efficient rail service.

For years we've had to fight, beg, and claw for funding for passenger rail against those who wanted to bankrupt Amtrak, even as more Americans were demanding increased Amtrak service. And this chart that we have here, in quick fashion, describes some of the hurdles we face. For you who have a problem discerning what each of these colors represent, the blue is the highway investment since 1949; aviation is the yellow, and intercity passenger rail, you can just about see at the bottom, is that green band. And when we look at how much we've invested in our highways and our aviation system, it's obvious that we've invested too little in rail.



We're not suggesting that those other modes aren't important, but we need to invest more in rail. Last year, we took a major step forward with my landmark law to prepare for the next generation, ahead of the traveling demand that's obviously building. That law provides \$13 billion over 5 years to repair and update Amtrak's infrastructure, and develop service in towns and cities that are ready for passenger rail. We also created new grant programs for high-speed rail investment. It has been a long road, but this new law finally paves the way for a solid and ongoing Federal commitment to passenger rail.

Fortunately, we have strong partners in the White House, in President Obama, Vice President Biden, and with the help of Secretary LaHood. They know that to keep our commuters mobile, to keep our Nation competitive, and to get our economy back on track, we cannot simply rely on cars and planes to get people from place to place. We need a balanced transportation system, and high-speed rail is part of that balanced equation. And that's why the re-

covery law we passed in February contains more than \$8 billion for high-speed and intercity passenger rail. This money will not only improve rail service, it will create jobs.

In this tough economy, these transportation investments are smart investments. They put people to work, reduce delays and congestion, and cut carbon emissions and our dependence on foreign oil.

President Obama and his Administration have presented a great vision for a high-speed rail network here in America, and I'm committed to working with the President to turn that vision into reality. I look forward to hearing from our witnesses on how we can make that happen. And I turn first to the Ranking Member on the Subcommittee, Senator Thune, and then we'll hear from Chairman Rockefeller and Ranking Member Hutchison.

**STATEMENT OF HON. JOHN THUNE,
U.S. SENATOR FROM SOUTH DAKOTA**

Senator THUNE. Thank you, Mr. Chairman, for calling this very timely hearing.

We have a very distinguished panel today that I want to welcome as well. We look forward to hearing from all of you.

My State is one of the few in the country that doesn't have passenger rail, and you have to hearken back a long ways in the annals of history to a time when we did. I recall my father, who's now almost 90, talking about taking the railroad back in the 1930s from my hometown of Murdo to Mitchell, which is about 130 or 140 miles, and that was a fairly frequent thing, and people at that time traveled by passenger rail a lot. But, it has been some time since we've had that in South Dakota. We're very dependent upon freight railroading, so I can probably approach this issue more dispassionately than most, since passenger rail is not something that we have in our State, although maybe with all the stimulus money, we could get some. That would be nice.

But, I want to say that the funding that has been made available for high-speed rail in the President's budget is an opportunity, obviously, not only the stimulus money, but also the other \$5 billion that's in the next five annual appropriation cycles. But I also would argue that it poses some risks.

It's a great opportunity for advancing high-speed corridor development, to address our congested corridors between major urban areas, but it's also a great financial risk to taxpayers if the selection and management of this project is not wisely carried out. And this is the key area that I'm most interested in hearing about from today's witnesses.

In my view, the Federal Government generally does a poor job of deciding on how to spend its money, and this is especially true when it comes to discretionary programs, where the Government has to choose between competing projects. One common result is that money gets spread thinly over a wide range of projects, and as a result, none of them actually gets done correctly or quickly. Or the Government uses soft criteria that results in choosing unviable or unsustainable projects. We also often find that costs spiral out of control, or that the original cost estimates were unrealistically low from the beginning.

How does the Department of Transportation and the Federal Railroad Administration intend to decide between competing projects, and how will the construction of these projects be overseen? Specifically, what I'd like to hear our panelists discuss today is: How will these projects be chosen, what criteria will be used, how will the department validate the data such as ridership and project costs submitted by applicants, and what oversight will occur, and how will it be carried out to ensure the projects come in on budget and on time?

I hope Congress will very closely monitor how this program is implemented. I also hope that this program succeeds, and when we look back 5 years from now, and after spending as much as \$13 billion, as is envisioned by the Administration, that we'll see great progress in advancing high-speed rail in our country. To me, success means rail passenger trains that serve real public transportation needs, that have been constructed on budget and on schedule, that are filled with passengers, making the routes economically viable.

I want to thank our panelists for appearing today, and for sharing their testimony.

Thank you, Mr. Chairman.

Senator LAUTENBERG. Thank you very much.

The Chairman of the General—Senator Rockefeller—I wanted to make him a General, but—

[Laughter.]

**STATEMENT OF HON. JOHN D. ROCKEFELLER IV,
U.S. SENATOR FROM WEST VIRGINIA**

The CHAIRMAN. Thank you, Chairman Lautenberg.

First of all I want to apologize. I'm not on the Judiciary Committee; the White House is very anxious to have all Senators meet with Judge Sotomayor before recess. I have been assigned a time at 3:15 p.m. That's kind of for life, for her, should she win, which I think she will. And so, I have to excuse myself, but I do that without any misgivings, because this is Frank Lautenberg's passion, and has been for years, really more than anybody. So, I also welcome all of you, including Governor Rendell. I just told him, I never see him in person, it's always on television, and it's kind of exciting to meet somebody like that.

[Laughter.]

Senator WARNER. Mr. Chairman, you don't know how exciting it is; I've worked with him.

[Laughter.]

The CHAIRMAN. Now, I agree totally with Senator Lautenberg, on the excitement of high-speed passenger rail. I've spent 10, 12 years either chairing or being ranking on the Aviation Subcommittee of this body, and it just occurs to me that we're down, now, to relatively few airlines with lots of problems. And if you just look at the pattern of people's behavior, they want to use rail, and they want to use fast rail. So, that's what this is about.

You know, I look at West Virginia, people don't necessarily assume that there's a lot of passenger rail through West Virginia. It's actually a huge fact, as it is, obviously, in southwestern Virginia, also. In fact, our Amtrak service, which Senator Lautenberg helped

so much, has doubled, in one of its lines, in the last year—doubled—and the other has risen by 19 percent. Now, West Virginians don't travel endlessly, so this is a very important statement.

Earlier this year, Senator Lautenberg and I joined, as he indicated, with the Vice President, the \$1.3 billion allocation to the stimulus package. It was cold, the speeches were not very interesting, but the money is real and that's what counts. And I have to say, in a nonpartisan fashion, that it is really thrilling to have, as Senator Lautenberg pointed out, somebody in the White House who really wants this, who really cares about it, who doesn't like that level of green up there, who wants to increase the green, and in fact has already done that.

I want to make a special point today to say that I believe that passenger rail can do so much for us as a country. That's not just a cliché. We need to increase the use of passenger rail enormously, not just for passengers but for freight; and we need to do it as fast as we possibly can. Transportation affects our climate change, it affects one-third of our greenhouse emissions in this country. The Department of Energy's Oak Ridge National Laboratory says that intercity passenger rail is 17 percent more efficient than air travel, that it is 21 percent more efficient than auto travel. That says something. So, encouraging greater use of it is terribly important.

I'll do everything I can, Senator Lautenberg, to work with you to make sure that we can do this and we will. It's inevitable. It's part of America's destiny.

I thank the Chair. And, I apologize to the audience and to the witnesses.

[The prepared statement of Senator Rockefeller follows:]

PREPARED STATEMENT OF HON. JOHN D. ROCKEFELLER IV,
U.S. SENATOR FROM WEST VIRGINIA

I'd like to start this hearing by honoring and remembering those who tragically perished in yesterday's catastrophic Washington, D.C. Metro accident.

Current press reports say 9 people lost their lives and many remain severely injured, in what is now the deadliest accident in the history of the Metrorail system.

This Committee takes its role in safety oversight extremely seriously and we will be paying careful attention to the NTSB investigation.

As we hold this hearing today on high-speed passenger rail infrastructure development, let us always be unwavering in our commitment to the transportation safety and security for all passengers.

I would like to welcome all of our distinguished guests on this panel, including Governor Rendell. It is a pleasure to have you testify before the Committee.

Although high-speed passenger rail is not something people usually associate with West Virginia, in fact, travelers in my state routinely rely on Amtrak's Capitol Limited and Cardinal services.

Indeed, West Virginia's Amtrak service continues to improve. I am proud to say that in the last year on-time performance of the Capitol Limited nearly doubled while the Cardinal has risen almost 19 percent.

Earlier this year, Chairman Lautenberg and I joined Vice President Biden at Union Station to announce the \$1.3 billion allocation of American Recovery and Reinvestment Act funds to Amtrak.

It is so refreshing to have such strong leadership from this Administration that brings attention to the real importance of passenger rail.

I want to make a special point today to say that I believe passenger rail can do so much for our transportation network, our environment, and our energy security.

In fact, one of the provisions of our bill, S. 1036, the *Federal Surface Transportation Policy and Planning Act*, would establish a national goal to increase the total usage of passenger rail services—and this is a very good thing.

Passenger rail will help us to tackle the climate change crisis and secure our Nation's energy supply. The transportation sector is responsible for one-third of the Nation's greenhouse gas emissions. We simply must address this growing challenge.

The Department of Energy's Oak Ridge National Laboratories tells us that intercity passenger rail is 17 percent more efficient than air travel and 21 percent more efficient than auto travel. Encouraging greater use of intercity passenger rail will lower emissions and help us conserve energy.

Although we have made large strides to get here today, there is still so much more to be done to prepare our transportation system and move it safely and securely into the 21st century.

I want to thank our guests for appearing today, and I look forward to hearing from them on how to make this happen.

Senator LAUTENBERG. Thanks very much, Senator Rockefeller. Your position as Chairman of this Committee is one that gives us encouragement that we can achieve this goal of ours, of having a more important rail leg to our transportation system. We thank you very much for your encouragement.

Senator Hutchison?

**STATEMENT OF HON. KAY BAILEY HUTCHISON,
U.S. SENATOR FROM TEXAS**

Senator HUTCHISON. Thank you, Mr. Chairman.

I am very pleased to be at this hearing, and also to have the opportunity to have a Texas presence at the hearing, because you and I, Mr. Chairman, have worked for a long time on Amtrak, keeping Amtrak viable, and I will say that we have had a very productive partnership at keeping the national part of Amtrak also viable. And I think that is essential. Now that we are beginning to see the possibilities for high-speed rail, I think it becomes even more important to have the national part of the system also have the opportunity for high-speed rail to connect into Amtrak and therefore provide really better synergism and ridership and service to both Amtrak and the high-speed rail that I do think will help ease the traffic congestion in many parts of our country.

I was very pleased that the first Amtrak authorization bill, before this last one, was in 1997, and I sponsored that one as Chairman of the Surface Transportation Subcommittee. And I think we did some great reforms, in last year's bill, to begin the process of having a Federal partnership for capital grant programs for States to be able to invest in rail. I think that is an important step forward to making it more viable. Because any successful rail project is going to have to have multiple partners—it's going to have to have private sector, Federal and State partners—because it's so expensive, and the early investment is expensive, but then it becomes much more efficient after it is finally built and established.

I'm pleased to welcome Mr. Szabo, who will appear for the first time in your new position as FRA Administrator, and we're glad to have you here. You'll play a major part in this, and I'm glad that you're going to have seven regional meetings to determine what the parameters for high-speed rail should be. And I think having them all over the country is another good sign.

I just want to say that Robert Eckels is the former county judge, which is the county executive in Texas, of our largest county, Harris County, and he is now heading up the effort for a high-speed rail corridor called the Texas T-Bone, and it's a great plan that is coming forward and could go right into Amtrak and have a lot of

great results. And I hope that it is one of the first projects that can get some of the stimulus funding that would be available. It's great that he's here to talk about the national system.

And I just want to recognize Governor Rendell, who also is someone with whom I've worked a long time. And his brother is actually my constituent in Dallas, Robert, and also a good friend, and someone with whom I've worked also, in Dallas and in Texas.

So, we have a lot of interest here, and I look forward to hearing from the witnesses, and it's a very distinguished panel.

Thank you very much, Mr. Chairman.

[The prepared statement of Senator Hutchison follows:]

PREPARED STATEMENT OF HON. KAY BAILEY HUTCHISON, U.S. SENATOR FROM TEXAS

These are truly exciting times for those of us who have long been advocates of passenger rail, and especially for those of us that have believed that the United States should try to develop high-speed rail corridors. To be successful, high-speed corridors must tie into our existing interstate passenger rail system so that Amtrak corridor and long distance trains can serve as feeder systems to support the economic success of high-speed rail service, and vice versa.

Last year, Congress was able to pass the first Amtrak reauthorization bill in 11 years—I was the sponsor of the 1997 law—and was proud to join in cosponsoring last year's authorization as well. The recent reauthorization measure made crucial reforms to Amtrak's operating and business practices and helped promote the long-term viability of passenger rail. The new law also, for the first time, created Federal passenger rail capital grant programs to help states construct and improve passenger rail corridors. This will help put passenger rail on equal footing with other modes of transportation that benefit from Federal financial assistance.

We all recognize that high-speed rail necessitates enormous resource commitments, such as right-of-way, infrastructure, equipment, and labor. Any project's success will also require strong partnerships among Federal, state, and local governments, host railroads in many cases, and other stakeholders. The economic stimulus bill provided \$8 billion to jump start high-speed rail projects around the country, and I am pleased the Federal Railroad Administration (FRA) has started working with the states, conducting 7 regional meetings to get stakeholder input on how to best establish the parameters of the Federal high-speed rail program. It is time to look beyond the Northeast Corridor.

I am very interested in hearing from today's witnesses, and want to particularly welcome the new FRA Administrator, Joe Szabo, who is testifying for the first time before this Committee in his new position. I am also very pleased that Judge Robert Eckels could join us today on behalf of the Texas High-Speed Rail and Transportation Corporation. He is going to help everyone understand that high-speed rail is not just for the East and West Coasts, but it also makes sense in places like Texas.

An efficient national passenger rail system is a crucial element of the American transportation system.

Senator LAUTENBERG. Thank you very much.

We made a decision, before, that because of the size and the quality of the witnesses here today, that we would forego additional opening statements. And we'll try to deal with this expeditiously and have 6-minute rounds, to give just an extra minute for your members seated.

I'd like to introduce the witness panel. A good friend and Governor, Ed Rendell, of Pennsylvania. Just like the people of New Jersey, our neighbors from Pennsylvania rely on trains on a daily basis. Governor Rendell has been a vigorous advocate for passenger rail, and I recall clearly his satisfaction, and his energy, in getting a new rail link between Philadelphia and Harrisburg, and it met with almost immediate success. That's the kind of stories that we expect to see constantly.

The Honorable Joseph Szabo, the FRA Administrator. This is the first time you've been before this Committee since your confirmation. We're looking forward to hearing how you're working to develop first-class passenger rail service for our Nation. I know your head and your heart are behind that.

And the Honorable Judge Robert Eckels, Chairman of the Texas High-Speed Rail and Transportation Corporation.

Ms. Susan Fleming, Director of Physical Infrastructure Issues at the Government Accountability Office.

And Tom Skancke, Commissioner of the National Surface Transportation Policy and Revenue Study Commission, President and CEO of the Skancke Company.

We thank you all for being here.

Governor Rendell, if you would, please, take 5 minutes to summarize. Try to meet the target, if we can.

Governor RENDELL. MR. CHAIRMAN, YOU FORGOT MR. BOARDMAN. Senator LAUTENBERG. Oh my God, I looked at Joe——

[Laughter.]

Senator LAUTENBERG. We'll fire that person.

[Laughter.]

Senator LAUTENBERG. You know, Ed, that's what happens—you take advantage of relationships—we're glad to have you, Joe, you've done a great job at Amtrak, we're proud of you, and I'm sorry.

I thank you, Governor, for the reminder.

We'll start you off at a fresh 5-minute clock.

**STATEMENT OF HON. EDWARD G. RENDELL, GOVERNOR,
COMMONWEALTH OF PENNSYLVANIA**

Governor RENDELL. Mr. Chairman, Ranking Member Thune, and all the Members of the Committee, it's a pleasure to be here.

I think this is a momentous opportunity for the country, and I would analogize it to the opportunity we had when we built the Federal Highway System, but we need to do it right.

I come here today wearing three hats: as Governor of Pennsylvania, as Chairman of the National Governors Association, and as Co-Chairman of Building America's Future, an organization dedicated to improving and investing in America's infrastructure, that I started with Governor Schwarzenegger and Mayor Bloomberg, a bipartisan organization, and we believe that promoting intercity rail is a key priority for America's overall infrastructure plan.

Mr. Chairman, you talked about the success Pennsylvania's had. Teamed up with Amtrak, we've invested \$145 million and improved the time on that Philadelphia-to-Harrisburg line from 120 minutes to 90 minutes, and in 2 short years our ridership has gone from 898,000 to nearly 1.2 million as a result of that change. If we build it right, people will ride it. I have absolutely no doubt about that.

There has been similar progress all around the country, and a lot of emphasis on doing what we did. The Harrisburg line has been improved to 110 miles an hour. And I want to talk about that in a second.

But I believe, as we look at intercity passenger rail, we can't be content, as a nation, to build out 110-mile systems. If we do that, we are absolutely consigning ourselves to second-class citizenship

compared to Asia and Europe. We have to find a way to build and finance true high-speed rail. As you know, the maglev train in Shanghai runs at 268 miles an hour. The Japanese bullet trains are at 170 miles an hour. The French TGV is at 160 miles an hour. We can't be content to just build out an ordinary system.

Now, what will high-speed rail do for us, in addition to moving passengers and helping our climate control? It'll create jobs for our citizens, jobs in building out the system, and orders for America's factories. And let me stress the importance of that.

In Pennsylvania alone, we have General Electric Transportation in Erie. And most of these factories tend to be in hard-hit areas of the country. In Erie, Pennsylvania, they employ over 4,000 people. They are ready to build the next generation of high-speed locomotives. In Steelton, a little town across from Harrisburg, Mittal Steel, the biggest steel corporation in the world, has a plant that builds railroad tracks. It has 400 workers. With just this \$13-billion investment, they intend to increase, and maybe double or triple, the size of their workforce in doing such.

TGV, the French high-speed rail system, is run by a company called SNCF, the national rail company. They employ over 200,000 people in good-paying jobs. And let me remind you, France is a country one-fifth of the size of the U.S. So, just imagine the number of jobs that would be—permanent jobs—in building this high-speed rail system, as well as all of the construction jobs and the orders for the factories in building out the system itself.

But, if we're going to do this, we have to do it right, and we have to do it at scale. Thirteen billion—and I know what Senator Thune said, and he's right—in one sense, \$13 billion is a lot of money. But in another sense it's a small amount of money to do what needs to be done.

To build a high-speed rail up the California coast is estimated to be a \$45-billion cost factor. To build a high-speed train from Philadelphia to Pittsburgh, which would link the Mid-Atlantic Corridor to the Midwest, would cost between \$20 and \$25 billion alone.

A couple of months—a couple, actually, weeks ago, Vice President Biden had a meeting with six Governors, and it was a very interesting meeting. The Governors were all pushing for their own projects, 100-mile projects. The Midwest Governors said that they have a plan to link the Midwestern cities up at 100–110 miles an hour. Governor Kane said that there's a plan to link Richmond and Washington with a 100–110 mile-an-hour train. And then Governor Nixon of Missouri spoke up, and Governor Patrick of Massachusetts and myself joined him, and said, "Slow down." We can't make this effort building 100-mile-an-hour train systems, or else we're truly consigning ourselves to be a second-class Nation, when it comes to transporting our citizens. We have to look at the maglevs, we have to look at the bullet trains, and we have to look at improving the Acela.

If we did the work we needed on the Acela line on Amtrak, we could go from New York to Washington in a hour and 30 minutes. We could go from New York to Philadelphia in 33 minutes. We could consign the shuttle to the rust heap. And by doing that we'd improve east-west air traffic all over the eastern seaboard. We

shouldn't be flying people 500 miles or less. We should be putting them on high-speed trains.

Now, Ranking Member Thune asked a very good question, "How are we going to decide which of these projects—whether it's \$13 billion or \$400 billion—how are we going to decide which projects should be given priority?"

I suggest that we create a national infrastructure bank, staffed by professionals—not necessarily professionals, all of them, in transportation, it could be some former Members of Congress, some former Secretaries of Transportation—and rank projects on a cost-benefit analysis, rank projects on priority, what they do for transporting people, how many people, the effect on climate change, all of those things, an independent ranking system. Because the public wants that. The public does not want transportation dollars authorized through the same old system, and certainly not for projects of this magnitude.

And last, how are we going to pay for it? Because \$13 billion, as Ranking Member Thune said, is a lot of money. But it's just a drop-in-the-bucket. How are we going to pay for building a high-speed rail system in this country? I think, two ways. I would recommend that the Congress consider using some of the money that comes from the national climate change law to do just that. What better way could we help our climate than getting cars off the road, trucks off the road, by building—buses off the road—by building a high-speed rail system?

Or, second, if that money is going to be spoken for elsewhere, or if that bill never comes to pass, I think the time has come to look for—at a Federal capital budget. You know, the Federal Government is the only political entity in the United States that does not have a capital budget. To have a capital budget, to do the things we can do with a capital budget, you have to change the way the CBO and OMB score. They can't score the total investment, they've just got to score the debt service. Like we do in Pennsylvania. We score what we pay for in that year. A Federal capital budget—even if the Federal capital budget doesn't fund the total infrastructure picture, but just funds the infrastructure bank, it could work.

So, the time is—in my judgment, the time calls for bold and strong actions. If we do this, the Obama Administration and this Congress will be remembered the same way that President Eisenhower and the Congress he worked with is remembered for building the National Highway System.

[The prepared statement of Governor Rendell follows:]

PREPARED STATEMENT OF HON. EDWARD G. RENDELL, GOVERNOR,
COMMONWEALTH OF PENNSYLVANIA

Chairman Lautenberg, Ranking Member Thune, and Members of the Committee, thank you for the opportunity to testify before you this afternoon on the Obama Administration's high-speed rail strategic plan. Not since the implementation of the Interstate Highway System have we been afforded such a momentous opportunity to change how this country moves forward.

But in order to succeed we will have to be smart, strategic and make tough and honest choices about paying for a first-rate national rail system, something this country has long struggled to do. The \$13 billion is a great down payment, but we will need to invest much, much more. The good news is that I and many other elected officials across this country stand ready to support the effort.

I am testifying today wearing three hats, as Governor of Pennsylvania, as Chairman of the National Governors Association, where I have made infrastructure the key initiative for this year, and as Co-Chair of Building America's Future.

Last year, I joined with California Governor Arnold Schwarzenegger and New York City Mayor Michael Bloomberg to form Building America's Future. Our bipartisan coalition of state and local elected officials shares a vision for a new era of increased national infrastructure investment that will spur job creation and long-term economic competitiveness, address climate change and our dependence on fossil fuels, and enhance safety and quality of life for our citizens. Promoting investment in passenger rail is a key priority for our group.

Take Pennsylvania as an example. In 2006, we completed a relatively modest \$145 million improvement project with Amtrak to increase speeds on the Keystone Corridor to 110 miles per hour between Harrisburg and Philadelphia. The trip time dropped from 2 hours to 90 minutes and the result was a 26 percent boost in annual ridership from 890,00 to 1.1 million.

There are similar projects all across the country, where improvements to existing track and improved signaling can reduce trip times and spur big increases in ridership for relatively modest costs. There are a number of these that we must undertake.

But we must also push for a comprehensive network of true high-speed rail as the Europeans and Asians have built. Such a network will be a catalyst for growth and development along its corridors, and will better connect Americans as our population continues to grow as well as reduce carbon emissions and improve quality of life.

It could end air travel of less than 500 miles, a positive for both travelers and the airline industry. With high-speed rail along the Northeast Corridor, the shuttle could shut down and those slots could be used for longer, more profitable flights throughout the U.S.

High-speed rail will create jobs for our citizens and orders for American factories, especially in some of the hardest hit parts of our country, where there is tremendous manufacturing capacity to build rail cars, tracks and equipment using American concrete and steel.

As the automakers continue to shed workers, consider that the SNCF, France's national rail company which runs the TGV, employs over 200,000 people in a country that's one-fifth the size of the U.S. in population. One can only imagine the amount of highly-skilled, good paying jobs that would be created and sustained by a robust national rail network in this country.

And Europe and Asia continue to invest in improving their already world-class networks. The French TGV has been up and running since 1981 and now achieves speeds of 199 miles per hour. The Japanese Shinkansen was inaugurated in 1964, at a speed of 130 mph, and is now up to 186 miles per hour. The Beijing-Tianjin train runs up to 217 miles per hour; the Shanghai maglev train achieves speeds up to an incredible 268 miles per hour. At those speeds, train travel is transformed into a mode competitive with air and vastly superior to the automobile.

But building such a system in the U.S. will require public and political will to invest well beyond \$8 billion in economic recovery funds and the \$5 billion in the President's FY10 budget in return for true high-speed rail. California's system alone is estimated to cost at least \$45 billion and a national system will cost much more than that.

The guidance recently issued by the Federal Railroad Administration for the \$8 billion in economic recovery funds requires only that eligible projects demonstrate the capacity to go at least 110 miles-per-hour. And for many rail routes, that would be a sufficient level of improvement, but would not create a world-class high-speed rail system that achieves European and Asian speeds.

A few weeks ago, a group of Governors, including myself, Wisconsin Gov. Jim Doyle, Michigan Gov. Jennifer Granholm, Virginia Gov. Tim Kaine, Missouri Gov. Jay Nixon, Massachusetts Gov. Deval Patrick, Georgia Gov. Sonny Perdue, and Illinois Gov. Pat Quinn were hosted at the White House for a discussion on high-speed rail with Vice President Biden and Secretary LaHood. There was a lot of excitement and many states have plans ready to go, but there was also a realization that we are embarking on a huge technical, political and financial undertaking.

There was general agreement that while there are incremental improvements we must make to our current rail system, in the end we must do much more. If all we wind up with is upgrading our existing 19th century rail technology, while our economic competitors forge ahead with 21st century rail systems, then we will not have succeeded in creating the kind of transformational change President Obama, Members of Congress, and so many others have envisioned.

States across the country are ready and willing to commit resources to this effort, but will need an ongoing and significant Federal commitment. A high-speed rail system will have a dramatic effect on reducing carbon emissions and we should be exploring ways to fund it through national climate change legislation as well as other funding sources such as gas taxes, VMT fees, tolling and congestion pricing and a National Infrastructure Bank.

Let's seize this moment.

Thank you, Chairman Lautenberg, Ranking Member Thune, and Members of the Committee. I welcome your questions.

Senator LAUTENBERG. Thank you very much. I didn't want you to speed up at the end but you got me so excited about high-speed that——

[Laughter.]

Senator LAUTENBERG. Thanks very much.

And now, Mr. Szabo, we'd like to hear from you.

**STATEMENT OF HON. JOSEPH C. SZABO, ADMINISTRATOR,
FEDERAL RAILROAD ADMINISTRATION**

Mr. SZABO. Thank you, Chairman Lautenberg, Senator Thune, Senator Hutchison, and Members of the Committee. It is certainly an honor to appear here today on behalf of President Obama, Vice President Biden, and Secretary LaHood to discuss the future of high-speed rail.

The Obama Administration has a vision that ensures safe and efficient transportation choices, one that builds a foundation for economic competitiveness, one that promotes energy efficiency and environmental quality, and one that supports interconnected, livable communities. And in each case, passenger rail is an integral part of that vision. In many cases, even modest investment in existing right-of-ways can result in high-speed rail with competitive trip-times and will continue rail's unmatched safety record.

Transportation is the lifeblood of any economy. And, not only will the high-speed rail vision improve mobility, but—obviously the construction will create many short-term jobs, but more importantly the sustained investment will revitalize domestic rail suppliers and the manufacturing industry.

Rail is already among the cleanest and most energy-efficient means of moving goods and people. In fact, one study indicates that implementing the current federally-designated high-speed rail corridors would result in an annual reduction of 6 billion pounds of CO₂.

A network, taking our national rail system as a foundation with traditional speeds, and then overlaying high-speed rail corridors, commuter rail systems, and providing connections with transit, will provide those interconnected communities that we seek.

Senator Hutchison mentioned the fact that we had been doing extensive outreach, and we feel that that's critical. In the development of our guidance, and as we continue to move forward with a national rail plan, we believe that that's fundamental. We need to reach out and engage stakeholders right from the inception of all this.

We are particularly pleased that in the seven outreach sessions that we've conducted so far, nearly 1,200 people participated, with a high level of enthusiasm and with a great deal of very, very bene-

ficial comments that were, in fact, incorporated into the guidance that we just released.

Our success is going to be determined by these partnerships. And like the construction of the highway system, States are going to play a very critical role.

We're on track, and we're using essentially the same model that the Europeans did in the rolling out of high-speed rail. Our near-term strategy seeks to advance new, express, high-speed corridor services at speeds over 150 miles-per-hour in corridors of 200 to 600 miles, and then for corridors of 100 to 500 miles we seek to develop both emerging high-speed rail corridors at speeds of 90 to 110 mile-an-hour, on track shared with freight operations, and also develop high-speed rail corridor systems at speeds of 110–150 miles-an-hour on dedicated tracks. In addition, we'll be looking to upgrade the reliability and quality of traditional 79-mile-an-hour intercity service.

Pleased to report that our guidance document is out. It was out on time. And it provides four tracks for possible funding: projects that are individual projects, that have individual utility and individual benefits; a track for corridor programs, which is more comprehensive, on implementing a full buildout of a corridor plan; a track for planning, to assist those states that aren't quite as far along but still have a keen interest in implementing high-speed rail plans; and then an area for projects that will provide for a 50–50 split, that will allow those states that are willing to help match dollars, allow us to stretch our dollars further.

The criteria for selection will be based strictly on merit. We will be measuring the public benefits, those that are measurable, achievable, and cost effective. The key element will—of that will be the applicant's ability to mitigate risk, the applicant's ability—their fiscal capacity to carry out the project, their fiscal ability to cover capital and operating expenses, and their ability to have adequate project oversight.

This is a transformation for FRA. Historically we've been a safety agency, and safety remains our top priority, but it's important to note that our passenger rail staff is—you know, it—our staffing levels are from a quieter era, when all we had to do was issue a couple of grants to Amtrak, or perhaps to short line railroad. And clearly that's changed. We're asking the members of this Committee to support the President's Fiscal Year 2010 budget that starts to address the staffing problems that managing a program of this magnitude will bring to the agency. And then, we also ask that the project oversight takedown be consistent with the more traditional 1 percent instead of the quarter of 1 percent that was authorized for us in the Recovery Act.

And with that, I look forward to your questions.

[The prepared statement of Mr. Szabo follows:]

PREPARED STATEMENT OF HON. JOSEPH C. SZABO, ADMINISTRATOR,
FEDERAL RAILROAD ADMINISTRATION

Chairman Lautenberg, Senator Thune, and Members of the Subcommittee: I am honored to appear before you today on behalf of President Obama, Vice President Biden, and Secretary of Transportation LaHood, to discuss one of our Administration's most important initiatives—the development of high-speed rail transportation in America. To supplement this testimony, I wish to incorporate by reference two

recent publications of the Federal Railroad Administration (FRA): *Vision for High-Speed Rail in America* (April 2009) and *High-Speed Intercity Passenger Rail (HSIPR) Program Notice of Funding Availability, Issuance of Interim Program Guidance*. (June 2009). Both documents are available on FRA's website: www.fra.dot.gov.

America faces a new set of transportation challenges—creating a foundation for economic growth in a more complex global economy, promoting energy independence and efficiency, addressing global climate change and environmental quality, and fostering livable communities connected by safe and efficient modes of travel. The existing transportation system requires significant investment simply to rebuild and maintain critical infrastructure and modernize aging technologies. Meeting our 21st century challenges will require new transportation solutions as well.

The Obama Administration believes that our transportation investment strategy must address several strategic goals in the coming years:

- *Ensure safe and efficient transportation choices.* Promote the safest possible movement of goods and people, and optimize the use of existing and new transportation infrastructure.
- *Build a foundation for economic competitiveness.* Lay the groundwork for near-term and ongoing economic growth by facilitating efficient movement of people and goods, while renewing critical domestic manufacturing and supply industries.
- *Promote energy efficiency and environmental quality.* Reinforce efforts to foster energy independence and renewable energy, and reduce pollutants and greenhouse gas emissions.
- *Support interconnected livable communities.* Improve quality of life in local communities by promoting affordable, convenient, and sustainable housing, energy, and transportation options.

A New Transportation Vision. President Obama proposes to help address the Nation's transportation challenges by investing in an efficient, high-speed passenger rail network of 100–600 mile intercity corridors that connect communities across America. High-speed intercity passenger rail (HSIPR) is well positioned to address many of the Nation's strategic transportation goals:

Safe and efficient transportation options. Rail is a cost-effective means for serving transportation needs in congested intercity corridors. In many cases, modest investment on existing rights-of-way can result in HSIPR service with highly competitive trip times, while also providing ancillary benefits to energy-efficient freight rail service. HSIPR also has a strong track record of safety in the United States and overseas. In Japan, for instance, the Tokaido Shinkansen trains have operated without a derailment or collision since the inception of operations in 1964.

Foundation for economic competitiveness. America's transportation system is the lifeblood of the economy. Providing a robust rail network can help serve the needs of national and regional commerce in a cost-effective, resource-efficient manner, by offering travelers and freight convenient access to economic centers. Moreover, investments in HSIPR will not only generate high-skilled construction and operation jobs, but it can potentially also provide a steady market for revitalized domestic industries producing such essential components as rail, control systems, locomotives, and passenger cars.

Energy efficiency and environment quality. Rail is already among the cleanest and most energy-efficient of the passenger transportation modes. A future HSIPR network using new clean diesel and electric power can further enhance rail's advantages.

Interconnected livable communities. Rail transport has generally been associated with “smart growth” because it can foster higher-density development than has typically been associated with highways and airports. Rail is uniquely capable of providing both high-speed intercity transportation and its own efficient local access and egress system. For example, in the Boston Region, Amtrak's Acela serves two downtown stations connected to public transit—South Station and Back Bay—as well as a suburban station near Route 128. Yet just a few miles down the line to the west, Acela achieves speeds up to 150 miles-per-hour.

Developing a comprehensive high-speed intercity passenger rail network will require a long-term commitment at both the Federal and State levels. The President proposes to jump-start the process with the \$8 billion down payment provided in the American Recovery and Reinvestment Act of 2009 (Recovery Act) and a high-

speed rail grant program of \$1 billion per year (proposed in his Fiscal Year (FY) 2010 budget).

A major reshaping of the Nation's transportation system is not without significant challenges. After decades of relatively modest investment in passenger rail, the United States has a dwindling pool of expertise in the field and a lack of manufacturing capacity. Federal and State Governments face a difficult fiscal environment in which to balance critical investments priorities, and many will have to ramp up their program management infrastructure. The country's success in creating a sustainable transportation future, however, demands that we work to overcome these challenges through strong new partnerships among State and local governments, railroads, manufacturers, and other stakeholders, along with the renewed Federal commitment proposed here.

The near-term investment strategy seeks to:

- Advance new express high-speed corridor services (operating speeds above 150 mph on primarily dedicated track) in select corridors of 200–600 miles.
- Develop emerging and regional high-speed corridor services (operating speeds up to 90–110 mph and 110–150 mph respectively on shared and dedicated track) in corridors of 100–500 miles.
- Upgrade reliability and service on conventional intercity rail services (operating speeds up to 79–90 mph).

This near-term strategy emphasizes making investments that yield tangible results within the next several years, while also creating a “pipeline” that enables ongoing corridor development.

Proposed Funding Approach. In order to meet the goals of the Recovery Act while initiating a transformational new program, we propose to advance four funding “tracks”:

- *Projects.* Provide grants to complete individual projects that are “ready to go” with preliminary engineering and environmental work completed.
- *Corridor programs.* Enter into cooperative agreements to develop entire phases or geographic sections of corridor programs that have completed corridor plans and service level environmental documentation, and have a prioritized list of projects to meet the corridor objectives; this approach would involve additional Federal oversight and support.
- *Planning.* Enter into cooperative agreements for planning activities using FY 2009 appropriations funds, in order to create the corridor program and project pipeline need to fully develop a high-speed rail network.
- *FY 2009 Appropriations Funded Projects.* As an alternative for projects that would otherwise fit under Track 1, but for State applicants offering at least a 50 percent non-Federal share of total project financing, enter into grants with more simplified terms, including more time to complete the project, than required under Track 1.

As President Obama outlined in his March 20, 2009, memorandum, *Ensuring Responsible Spending of Recovery Act Funds*, program evaluation will be based on “transparent, merit-based selection criteria.” Criteria will include:

- *Public Benefits.* The extent to which the project or corridor program provides specific, measurable, achievable benefits in a timely and cost-effective manner, including: (1) contributing to economic recovery efforts, (2) advancing strategic transportation goals (outlined above), and (3) furthering other passenger rail goals articulated in the Passenger Rail Investment and Improvement Act of 2008 (PRIIA).
- *Risk Mitigation.* The extent to which the project or corridor program addresses critical success factors, including: (1) fiscal and institutional capacity to carry out projects, (2) realistic financial plans for covering capital and operating costs, (3) formal commitments from key stakeholders (*e.g.*, railroads and participating States), and (4) adequate project management oversight experience and procedures.

As provided for in the Recovery Act and PRIIA, the universe of potential applicants is limited to States, groups of States, and under some circumstances, Amtrak. The focus on State-based passenger rail investment decisions is new for FRA. It is abundantly clear that success, which I take to mean a sustainable program delivering true transportation benefits in a cost-effective, environmentally positive and energy efficient manner, can only be achieved through the development of new partnerships between FRA and the States and regions.

Finally, the President's high-speed rail initiative will transform FRA as an agency in many ways. In the more than 25 years that I have known of FRA, it has been a safety agency that also gave Amtrak its annual grant. In my mind, safety will always be FRA's top priority. But we now have a new, and very important financial assistance mission with a new set of partners and stakeholders. While high-speed rail is an important part of this new mission, so too are our expanded relationship with Amtrak, the new grant programs authorized over the last couple of years and our credit assistance program.

FRA's financial assistance staff today is sized for that earlier, quieter era. Even though PRIIA added a number of responsibilities in the areas of passenger rail and financial assistance to FRA's mission, that Act did not authorize an expansion of FRA's financial assistance staff. That they have produced high quality products in response to the aggressive schedule in the Recovery Act is a testament to the knowledge, skill and dedication of that small staff. Having said that, we cannot successfully manage the high-speed rail program envisioned by the President and implement the provisions of PRIIA and undertake our other new and expanded financial assistance functions contained in other recent Acts with the present levels of staff and other resources. The President's FY 2010 budget begins to address FRA's financial assistance staff and resource needs. I urge members of this Committee to support this request. I will also note that successful implementation of the Recovery Act, including oversight of the expenditure of \$8 billion, will require that the amount of these funds available for use by the Secretary in project oversight be consistent with the 1 percent authorized in 49 U.S.C. 24403(b)(1) and not the one quarter of 1 percent authorized in the Recovery Act.

In closing, let me restate the obvious, these are exciting times at FRA and the Department of Transportation. Long-serving staff at FRA have told me that they have never before seen the level of Administration support for rail programs that they see today from President Obama, Vice President Biden and Secretary LaHood. But if our efforts are to be successful, we will need Congressional support too. I look forward to working with the Members of the Congress in general and this Committee in particular to help this Nation reap the numerous benefits offered by high-speed rail.

Senator LAUTENBERG. Thank you very much.

And now, Mr. Joe Boardman, the President and CEO of Amtrak, as the current CEO, former FRA Administrator, former State transportation official.

Joe, forgive me again for leaving you at the station when the train was pulling out, but—

[Laughter.]

Senator LAUTENBERG.—I'm back, apologetically.

Mr. BOARDMAN. All is forgiven, and I hope never to leave you at the station, Senator.

[Laughter.]

**STATEMENT OF JOSEPH H. BOARDMAN, PRESIDENT AND
CHIEF EXECUTIVE OFFICER, AMTRAK**

Mr. BOARDMAN. Thank you, Mr. Chairman, and Senators, all.

Amtrak has been providing intercity passenger service for nearly 40 years, and we regard ourselves as the leaders in the field. But half of our 310 daily trains operate on some part of the Northeast Corridor, which is currently the only high-speed railroad on the continent.

Its operation—in its operation, we've built, gradually but surely, into a 150-mile-an-hour railroad. This has given us a unique and unparalleled experience in the operation of service above 100 miles-an-hour, under North American conditions.

I recently returned from an extensive tour of our Western operations, in fact 9,000 miles worth of riding the train and 47 Amtrak-prepared meals.

[Laughter.]

Mr. BOARDMAN. They were all good, but I would have had a little more variety.

I can assure you that the mood of our employees and our supporters is optimistic. People are excited about the future of Amtrak and intercity passenger rail, and there's a real sense that we have a historic opportunity ahead of us.

The Passenger Rail Investment and Improvement Act, or PRIIA, establishes a new partnership between the Federal Government, the states, Amtrak, and the freight railroads. This Committee played a pivotal role in the development and enactment of the legislation. This is my first appearance before this Committee as President of Amtrak, and so, on behalf of the company and all of our supporters, I would like to thank the Committee, and, in particular, Senator Lautenberg and Senator Hutchison, for your wisdom and your efforts on our behalf.

Under PRIIA, each entity has a clearly defined role. The states are the strategic planners, they decide which markets should be served by rail, and they fund the operating cost for new or expanded corridor services. While the Federal matching program provides funding for capital projects, states will need to provide the annual funding for those portions of the operating cost that are not covered by revenues.

The U.S. Department of Transportation coordinates state efforts and administers the Federal Capital Fund for Corridor Development. Amtrak is the Nation's rail operator. It designs and provides service on behalf of the States and the Federal Government, in cooperation with the host companies, which own much of the railroad right-of-way. This is an extraordinary vision, and a lot of the ideas that are contained in it will probably be components of the transportation reauthorization bill that's going to come before Congress in the coming years.

The American Recovery and Reinvestment Act, or ARRA, builds on this vision, and expands on it. It provides Amtrak with a direct grant of \$1.3 billion for capital improvements. It funds the high-speed rail intercity passenger rail, and rail congestion mitigation grant programs, with \$8 billion of capital fund. ARRA will focus attention and funding on those projects that can be accomplished in the nearer term, essentially, in the next 5 to 7 years. To address longer-term development needs, President Obama has proposed to make about a billion dollars-a-year available for grant funding.

A lot of the discussion that has followed has been about speed. But the real issues are trip time and market relevance, and the natural yardstick for comparison is the automobile. So, when we talk about improving speeds, we need to be thinking about those increases in the context of their effect on trip times.

Frequency is also a major component of relevance, and we need to make sure that we're developing a sufficient number of frequencies in our services to provide travelers with a range of choices.

There are really three ways to build, develop, or improve passenger train speeds. The best known method is one that a lot of people have in mind when they say "high-speed rail." And it's, by an order of magnitude, the most expensive and time consuming: trains that operate routinely in the 120—150 to 220 mile-an-hour

range. These projects require a new right-of-way, with very high standards of engineering. Our dedicated passenger railroads require the newest and most modern equipment, are electrified, and serve relatively few intermediate points. They're basically end-point-focused services.

Another model is the higher-speed service that's developed incrementally on an existing railroad. To do this, track and infrastructure upgrades—are upgraded to an existing line. Depending on the route, this could also entail some smoothing out of curves and perhaps grades, as well as some improvement to grade crossings and signaling systems. This is exactly the process that began on the Northeast Corridor after 1976, when Amtrak gained control of it. And over the years we've gradually raised speeds from—to 125, and then, in places, to 135 and 150 miles-an-hour.

There is, however, a natural sweet spot at 110 miles-an-hour that offers some significant advantages. You don't need to close or separate grade crossings, you can operate diesel-powered services with existing equipment, most importantly you don't necessarily need a dedicated track or right-of-way, although in some circumstances they might be desirable. Those are formidable cost advantages, and 110-mile-an-hour service still allows the reduced trip times that make rail service competitive in certain markets.

Finally, there's a third strategy to improving service. It's reducing the portions of your journey that trains cover at a low or very low speeds. Our goal is not raw speed. But it's, rather, an economical, reliable, and trip-time-competitive service. A big part of reducing trip time involves finding ways to raise operating speeds at that low end of the range.

We recently replaced a heavily trafficked crossing in Chicago's Brighton Park. There was no interlocking protection, so trains actually had to come to a stop before getting a signal to proceed at 10 miles-an-hour. We can now move trains through that interlocking at 40 miles-an-hour, and this has allowed us to lop several minutes off the average operating time through this section.

I hope the Committee will keep Amtrak and intercity passenger rail in mind as it considers some of the pending legislation we expect to see in the coming months. Transportation emissions need to be addressed in any proposed climate change policy solution, and we believe expanded intercity passenger rail offers significant opportunities to reduce carbon emissions.

I want to commend Chairman Rockefeller and Chairman Lautenberg for their recently introduced Surface Transportation Policy Bill. This Bill is an excellent framework for the reauthorization, and it moves us in the direction of a mode-neutral program that uses policy outcomes to guide transportation investments.

Transportation policy that's focused on outcomes would allow the Federal Government to focus its limited resources on investments that achieve real benefits.

Senator LAUTENBERG. Thank you.

Mr. BOARDMAN. Thank you.

[The prepared statement of Mr. Boardman follows:]

PREPARED STATEMENT OF JOSEPH H. BOARDMAN,
PRESIDENT AND CHIEF EXECUTIVE OFFICER, AMTRAK

Good morning. I'm pleased to have the opportunity to come before this Committee to discuss the opportunities and challenges for high-speed rail that we see at Amtrak. Development of high-speed and intercity passenger rail service is an essential step our country must take to address pressing national needs such as urban mobility, modal congestion, fuel efficiency, emissions reductions, and economic development. Amtrak has been providing intercity passenger service for nearly forty years, and we regard ourselves as the leaders in the field. About half of our 310 daily trains operate on some part of the Northeast Corridor, which is currently the only high-speed railroad on the continent. It's an operation we have built, gradually but surely into a 150 mph railroad. This has given us a unique and unparalleled experience in the operation of service above 100 mph under North American conditions. It has also helped us to forge a strong working relationship with the Federal Railroad Administration, a relationship dating back to the early 1970s. They have a strong sense of our needs; we in turn are deeply aware of the views, needs and concerns that underpin their policies. In the last few years, Amtrak and the FRA have established a strong pattern of cooperation that will serve us well in the years to come. We also understand the concerns and challenges of the freight railroads. Those will be of great importance, since much of the future of high-speed passenger rail development relies on privately-owned track and right-of-way. Finally, we recognize the need to manage expectations. The opportunities are very real, but we must stay grounded if we are to realize the potential of this tremendous moment. I recently returned from an extensive tour of our Western operations. I can assure you that the mood of our employees and supporters is optimistic. People are excited about the future of Amtrak and intercity passenger rail, and there's a real sense that we have a historic opportunity ahead of us.

The Passenger Rail Investment and Improvement Act (or "PRIIA") establishes a new partnership between the Federal Government, the states, Amtrak and the freight railroads that recognizes these realities. This Committee played a pivotal role in the development and enactment of the legislation. This is my first appearance before this Committee as the President of Amtrak, and so on behalf of the company and all of our supporters, I would like to thank the Committee, and particularly, Senator Lautenberg and Senator Hutchison, for your wisdom and your efforts on our behalf. Many of the efforts I am about to discuss would not be conceivable, let alone possible, without the framework of policy this Committee worked so hard to enact.

Under PRIIA, each entity has a clearly defined role. The states are the strategic planners; they decide which markets should be served by rail, and they fund the operating costs for new or expanded corridor services. While the Federal matching program provides funding for capital projects, states will need to provide the annual funding for those portions of the operating cost that are not covered by revenues. The U.S. Department of Transportation coordinates state efforts and administers the Federal capital fund for corridor development. Amtrak is the Nation's rail operator; it designs and provides service on behalf of the states and Federal Government in cooperation with the host companies, which own much of the railroad right-of-way. This is an extraordinary vision, and a lot of the ideas that are contained in it will probably be components of the transportation reauthorization bill that's going to come before the Congress in the coming years.

The American Recovery and Reinvestment Act (or "ARRA") builds on this vision and expands on it. It provides Amtrak with a direct grant of \$1.3 billion for capital improvements. It funds the high-speed rail, intercity passenger rail and rail congestion mitigation grant programs with an \$8 billion capital fund. ARRA will focus attention and funding on those projects that can be accomplished in the nearer term, essentially the next 5-7 years. To address longer-term development needs, President Obama has proposed to make about a billion dollars a year available for grant program funding.

A lot of the discussion that has followed has been about speed, but the real issues are trip time and market relevance, and the natural yardstick for comparison is the automobile. So when we talk about improving speeds, we need to be thinking about those increases in the context of their effect on trip times. Frequency is also a major component of relevance, and we need to make sure that we are developing a sufficient number of frequencies on our services to provide travelers with a range of choices.

There are really three ways to build, develop, or improve passenger train speeds. The best-known method is one that a lot of people have in mind when they say "high-speed rail," and it is by an order of magnitude the most expensive and time-

consuming: a brand-new electrified right-of-way that's specifically engineered to carry very fast trains—trains that operate routinely in the 150–220 mph range. These projects require a very high standard of engineering, are dedicated passenger railroads, require the newest and most modern equipment, are electrified, and serve relatively few intermediate points; they're basically endpoint-focused services.

Another model is the higher speed service that's developed incrementally on an existing railroad. To do this, track and infrastructure are upgraded on an existing line. Depending on the route, this could also entail some "smoothing out" of curves, and perhaps grades, as well as some improvements to grade crossings and signaling systems. This is exactly the process that began on the Northeast Corridor after 1976 when Amtrak gained control of it, and over the years we have gradually raised speeds to 125 mph, and then in places to 135 mph and 150 mph. There is, however, a natural "sweet spot" at 110 mph that offers some significant advantages—you don't need to close or separate grade crossings, and you can operate diesel-powered services with existing equipment. Most importantly, you don't necessarily need a dedicated track or right-of-way—although in some circumstances they might be desirable. Those are formidable cost advantages—and 110 mph service still allows the reduced trip times that make rail service competitive in certain markets.

Finally, there's a third strategy to improving service—it's reducing the portions of your journey that trains cover at low or very low speeds. Our goal is not raw speed, but rather an economical, reliable and trip time-competitive service. A big part of reducing trip time involves finding ways to raise operating speeds at the lower end of the range; congestion reduction could be a strategy in the Chicago area, for example, where heavy traffic frequently delays our trains at crossings, junctions, and yards. We recently replaced a heavily trafficked crossing at Brighton Park. There was no interlocking protection, so trains actually had to stop before getting a signal to proceed at 10 mph. We can now move trains through the new interlocking at 40 mph, and this has allowed us to lop several minutes off the average operating time through this segment.

The stimulus money will advance high-speed rail around the country and it will offer some breakthroughs. More importantly, I believe, is that the money will only flow to projects which provide significant and demonstrable results. There are corridors that are ready and primed for development. Congress and the Administration have challenged us—really all of us at this table, and we have to prove ourselves. In 4 years, I hope we can point to tangible results, with more on the way. In that light, I believe we will have earned the right to keep moving forward and bringing relevant, fast service to more regions of the country. Amtrak wants to be the high-speed rail operator in the United States. We are willing to partner with states to provide whatever service is required to succeed in the marketplace, whether it's the addition of frequencies on existing conventional services or the operation of a true high-speed service. Amtrak is committed to the development of the national rail system.

I am very optimistic about the potential for passenger rail in this country. While we're feeling the effects of the economy, this is the moment to invest. We need to be putting money into the network in anticipation of the demand that's coming. We got a real warning of the need last summer when the gasoline prices hit \$4 a gallon, and the ridership growth on our trains and on transit lines around the country highlighted the national interest in individual mobility. As it is, we're seeing a gradual but very real growth in gas prices since the beginning of the year. I think we have a real opportunity to realize some substantial improvements in the speed and reach of our service, and I look forward to working with the Committee, the states, the FRA and our rail industry partners in the coming years as we strive to effect some tremendous, measurable, and enduring improvements.

With these opportunities come challenges. The enactment of PRIIA and ARRA requires us to update and refocus our organization and our policies to meet our new roles in this exciting era for passenger rail. Additionally, we are currently undertaking large investment programs funded by our ARRA funds and hope to expand this work in partnership with the states through future grants. This work will place significant new demands on Amtrak and will similarly tax the resources and organization of the FRA and the states. In particular, many of our state partners are not staffed for this new mission and many are facing financial difficulties, which may particularly affect their ability to provide the operating support for corridor services that is required by PRIIA. As we seek to better understand these challenges, we will keep the Committee apprised of any additional needs and assistance that we identify and we ask for your continued support, which has always been so important to us, so that we can help assure that your vision for an expanded and effective intercity passenger rail network is realized.

Finally, I hope that the Committee will keep Amtrak and intercity passenger rail in mind as it considers some of the pending legislation we expect to see in coming months. As we address climate change, for example, I would note that transportation emissions need to be addressed in any proposed policy solution and that we believe expanded intercity passenger rail service offers significant opportunities to reduce carbon emissions. Regarding the reauthorization of the Federal surface transportation programs, I want to commend Chairman Rockefeller and Chairman Lautenberg for their recently introduced surface transportation policy bill. This bill is an excellent framework for the reauthorization and it moves us in the direction of a mode-neutral program that uses policy outcomes to guide transportation investments. With such a policy in place, I believe intercity passenger rail would finally be placed on a level playing field and enabled to contribute more significantly to solving the mobility challenges facing our Nation. A transportation policy that focused on outcomes would allow the Federal Government to focus its limited resources on investments that achieve real benefits such as reduced carbon emissions, energy efficiency and congestion mitigation. Intercity passenger rail and Amtrak can help us to achieve each of these much-needed goals, and I look forward to working with you in the coming months as we strive to translate them from legislation into national policy.

Senator LAUTENBERG. And, Mr. Eckels, we're pleased to have you with us. I didn't mention, before, that the High-Speed Rail and Transportation Corporation that you're with is a Texas facility. And we have had the good fortune to work with Senator Hutchison over the years. I must say that she was a light at the end of the tunnel in some of the really tough moments that we had, and it was a pleasure to work with you. Thank you.

Mr. Eckels, please.

**STATEMENT OF HON. ROBERT ECKELS, CHAIRMAN, TEXAS
HIGH-SPEED RAIL AND TRANSPORTATION CORPORATION**

Mr. ECKELS. Yes, sir, we have been—enjoyed working with Senator Hutchison over the years on high-speed rail, in fact, in the days of the Authority in Texas and here into our current planning process.

And before you fire your staff for missing Mr. Boardman on your list, I want to thank them for their help to me in—I'm a tardy person in getting in my testimony today, on airplanes, and they were very helpful, and I appreciate their support and assistance.

I also want to thank Ranking Member Thune and all the Senators for being here today, and the interest that you have in this project in our State, and these projects across the country.

I believe that this technology will transform transportation and mobility in the United States, and I know that I am by no means alone in this belief, and I'm encouraged by the comments we're hearing here today.

Governor Rendell made the good point about high-speed intercity rail passenger service, defined at 185 miles-per-hour and higher, is, we think, the most important thing to remember, as you talk about high-speed rail, as evidenced by the examples around the world, the projects that actually work, that provide real significant potential to reduce potential in our—reduce the congestion in our crowded skies and highways, reduce carbon emissions, reduce our demand for foreign oil, create hundreds of thousands of jobs, and stimulate and orchestrate economic development and growth across our country right now.

I was not invited here to talk about the—preaching to the choir, though, for high-speed rail. You're aware of the benefits, we've all

talked about that today. I was brought here more to discuss how close we are to seeing these benefits, and what must be done to ensure that we get where we want to be.

The President and Secretary LaHood have made their vision clear. They want world-class high-speed rail in this country. To reap the kinds of benefits that we're talking about today, and, Senator Thune, to justify the tremendous investment that has already begun, and, if increased as recommended by Chairman Oberstar, and Ranking Member Mica, and this Committee, we must set that bar incredibly high. And Governor Rendell has commented that our country is ready for, and must have, truly fast and efficient passenger travel, trains that are capable of speeds of 185 miles-per-hour or more.

When President Kennedy declared that this country would put a man on the Moon before the end of the 1960s, he knew that his bold, aggressive promise would require a new culture, a new mindset, and ultimately a new administration in NASA to become a reality. This kind of example is something that I think we should be mindful of today.

Don't misunderstand me, I have complete confidence in the United States Department of Transportation and Secretary LaHood, his colleagues at the Federal Railroad Administration, and I have no doubt that the President has assembled a team, including Administrator Szabo—and we have not had a chance to work together, but with Deputy Administrator Karen Rae—we had the pleasure of being with her a few weeks ago in Houston at one of the outreach sessions—they're fully capable of developing the system throughout the Nation. In order for America's, in the broadest sense of the term, "moonshot" to become a reality, we—and that is all of us here, as well as Members of Congress—must work in concert with the same bold vision. We must consider this revolutionary initiative in its proper context, and recognize that the clear view of this administration and Congress, combined with the mounting public and private-sector support for groups such as the Texas High-Speed Rail and Transportation Corporation, the California High-Speed Rail Authority, the Florida High-Speed Rail Authority, among many others, working closely with Rod Diridon and Bill Millar at APTA, with other organizations, represent a once-in-a-century opportunity to make a real and positive impact on our country's transportation and economic development landscape. Let's be certain that we all have our eyes on the same prize: passenger trains traveling at—at least at 185 miles-an-hour or more, on a new, dedicated—as Mr. Boardman talked about—track system and high-speed rail infrastructure. If we have that separate infrastructure, we improve safety, reduce collisions, and improve economic benefits to the community.

As we look to build this new system, it's important to remember that we are breaking new ground in this Nation. It would be wise to provide flexibility in the use of Federal funds to provide for market studies, and route engineering and environmental studies. In all of the projects I've been involved with at the local level, and it has primarily been traffic and toll revenue, we're the only county-run toll road system in the Nation that's over 500 miles, lane miles of system, we always built the projects ahead of schedule and

under budget. But the key to being ahead of schedule and under budget was having the right schedule and the right budget, and doing the studies beforehand, so that we knew what we would be spending in the end.

The market and environmental studies are important if we're to attract private investment, as well. And all of the discussions up until most recently have discussed private investment and public-private partnerships. There are places in the world where high-speed rail is at least covering its operational costs and making a profit for investment. There are place in America, too, where high-speed rail can also make sense for private investment. And to attract these investors we must show that the routes are viable and that the demand can cover cost.

To encourage private investment we should offer tax-exempt—additional tax-exempt private activity bonds, additional TIFIA funding, and other financial mechanisms that might be available from the Federal level.

I also would encourage you that, as we look to different projects, we don't try to put in one formula for the entire country. Innovative project delivery systems are important. There are different needs in the Northeast Corridor, California, Illinois, and in Texas. In Texas, we have a linear-airport kind of model, where—and again, Senator Hutchison's been very close working with us—that in every part of the country, whether it's a transit system, an airport, or a seaport, all of those are owned and operated by cities or counties. If you will give local governments the opportunity to connect our airports, our seaports, and our transportation—metro transportation systems, we will, for the first time, breathe life into a truly viable interconnected mobility system.

We are very grateful for the support of the Administration's vision for high-speed rail, and are encouraged by the size of the financial commitments under discussion for the next surface transportation bill. We're not working under the assumption that the Federal Government, or any State governments alone, are prepared to cover the cost of these projects for our country. I do think the Governor was—good comments about being able to sustain the systems that we build, but we believe that the cities and the counties have roles to play in that, and are coming together to try to make that work.

We do have a local government corporation, and the capacity to bring that coalition together to help deliver this project in our State, and provide a service through our 440-mile Texas T-Bone Corridor that Senator Hutchison mentioned—it would bring 16 million Texans today living together, connect us along the Gulf Coast Corridor to New Orleans, Atlanta, and the East Coast, and on the South Central Corridor into Oklahoma City, to Little Rock and up into Memphis, and ultimately into the Midwest.

This Texas project, while impressive in itself, will require a unique partnership of Federal, State, and local officials, as well as the private sector, and we would very much look forward to working with this Committee, and with FRA and Amtrak, to make that happen.

So thank you very much for having us here, and I'm looking forward to questions.

[The prepared statement of Mr. Eckels follows:]

PREPARED STATEMENT OF HON. ROBERT ECKELS, CHAIRMAN,
TEXAS HIGH-SPEED RAIL AND TRANSPORTATION CORPORATION

Good afternoon Chairman, Good afternoon Ranking Member Hutchison. Good afternoon Senators. It is an honor to be here this afternoon speaking before this distinguished group on something that I believe can and will transform transportation and mobility in the United States—and I know that I am by no means alone in this belief. High-Speed intercity passenger rail, defined as 185 mile per hour and higher, as evidenced by the numerous examples around the world, provides to us the real and significant potential to reduce congestion in our crowded skies and highways, reduce carbon emissions, reduce our demand for foreign oil, create hundreds or thousands of jobs and stimulate and orchestrate economic development and growth across the country right now.

I was not invited here, however to preach to the choir about high-speed rail. You all are acutely aware of the enormous benefits that wise, prudent and progressive decisionmaking today will allow us to realize when High-Speed Passenger Rail is successfully developed across the country. I was invited here to discuss how close we are to seeing these benefits and what must be done to insure that we get to where we all want to be. The President and Secretary LaHood have made their vision clear: they want “world class” high-speed rail in this country. To reap the kinds of tremendous benefits outlined above, and to justify the incredible amount of Federal investment that has already begun and, if increased as recommended by Chairman Oberstar and Ranking Member Mika last week, we must set the bar incredibly high. This Country is ready for and must have truly fast and efficient passenger travel—trains capable of 185 miles per hour or more. When President Kennedy declared that this country would put a man on the Moon before the end of the 1960s, he knew that his bold, aggressive promise would require a new culture, a new mindset and ultimately a new administration, NASA, to become a reality. This is an example of which we must be mindful.

Now please do not misunderstand me. I have confidence in the United States Department of Transportation and Secretary LaHood, and his colleagues in the Federal Railroad Administration. I have no doubt that the President has assembled a team, including Deputy Administrator, Karen Rae, whom I had the pleasure of visiting with a few weeks ago in Houston, that is more than capable of developing this system throughout the Nation. In order for America's, in the broadest sense of the term, “moonshot” to become a reality, we—all of us—must work in concert with the same bold vision. We must consider this revolutionary initiative in the proper context, and recognize that the clear vision of this Administration and Congress, combined with the mounting public and private sector support for groups such as the Texas High-Speed Rail and Transportation Corporation, the California High-Speed Rail Authority and the Florida High-Speed Rail Authority, among many others working closely with Rod Diridon and Bill Millar at APTA, represents a once in a century opportunity to make a real and positive impact on this country's transportation and economic development landscape. Let's be certain that we all have our eyes set on the same prize—passenger trains traveling at least 185 miles per hour on new dedicated high-speed rail infrastructure.

As we look to build this system, it is important to remember that we are breaking new ground in America. It would be wise to provide flexibility in the use of Federal funds to provide market studies and route engineering and environmental studies.

Market and environmental studies are important if we are to attract private investment. And every discussion of high-speed rail has included public private partnerships.

There are places in the world where high-speed rail is at least covering its operational cost and making a profit for investors. There are places in America too, where high-speed rail can also make sense for private investment. To attract these investors we must show that the routes are viable and that demand can cover costs.

To encourage private investment we could offer tax-exempt private-activity bonds to provide lower financing costs for private passenger rail service providers.

An additional challenge for interstate private investment in high-speed rail is different tax treatments in multiple state and local jurisdictions. While taxes are not an issue on systems owned by state or local governments, Congress should consider the impact of local sales and property taxes on private high-speed rail infrastructure development.

The Federal funding proposals should recognize as well that each state is different. The plan that works for the Northeast Corridor may not be the same as the model in California or Illinois.

In Texas we have proposed a "linear airport" model. As you are all aware, other than military installations, every transit system, airport and seaport in this country is owned and operated by a city or county. Give local governments the opportunity to connect our airports, seaports, military reservations and transit systems. Do not allow Federal policy to prevent us from creating collector-distributor systems that will, for the first time, breathe life into the vision of a truly interconnected mobility system.

We are grateful and supportive of the Administration's vision for high-speed rail and are encouraged by the size of the financial commitment under discussion for the next Surface Transportation Bill. We are not, however, working under the assumption that the Federal Government, or any of our State Governments are prepared to pay the entire cost for construction of high-speed rail in this country. We believe that, just as they have always done in aviation, transit and seaports, the Nation's cities and counties must play a powerful role in this important work and that attracting private-sector investment will be critical to the success of any high-speed rail system.

In Texas that means a local government corporation, a creation of a coalition of cities and counties along the proposed high-speed corridors, which in partnership with the Texas Department of Transportation, is working to increase grassroots support and secure funds for market studies and right of way acquisition to construct the Texas "T-Bone," a 440-mile corridor that will serve 16 million Texans and connect along the Gulf Coast Corridor to New Orleans, Atlanta on the East Coast and along the South Central Corridor to Oklahoma, Little Rock and Memphis.

The Texas project alone will require a unique partnership of Federal, State and local officials with the private sector.

To truly recognize America's vision for high-speed rail, I would encourage this body to set the bar high. Let us go fast, get there soon and get there together.

Thank you.

Senator LAUTENBERG. Ms. Fleming, we welcome you, and ask you to make your remarks now, please.

**STATEMENT OF SUSAN A. FLEMING, DIRECTOR,
PHYSICAL INFRASTRUCTURE ISSUES,
U.S. GOVERNMENT ACCOUNTABILITY OFFICE**

Ms. FLEMING. Mr. Chairman, Ranking Member Thune, Ranking Member Hutchison, and Members of the Subcommittee, thank you for the opportunity to discuss high-speed intercity passenger rail and the American Recovery and Reinvestment Act.

The \$8 billion provided by the Act for high-speed and other intercity passenger rail projects have focused more attention on, and generated a great deal of anticipation about, the possibility of developing high-speed rail systems in the United States.

My testimony has two parts: I will discuss the factors that we have identified that affect the economic viability of high-speed rail projects, and how FRA's strategic plan incorporates these factors.

First, while the potential benefits of high-speed rail projects are many, these projects are costly, take years to develop and build, and require substantial up-front public investment, as well as potentially long-term operating subsidies. Determining which, if any, high-speed rail projects may eventually be economically viable will rest on the factors such as ridership potential, costs, and public benefits. High-speed rail is more likely to attract riders in densely and highly populated corridors, especially where there is congestion on existing transportation modes. Characteristics of the proposed service are also important, as high-speed rail attracts riders where it compares favorably to transportation alternatives, in terms of

door-to-door trip times, frequency of service, reliability, safety, and price.

Costs largely hinge on the availability of rail right-of-way, land-use patterns, and a corridor's terrain. Once projects are deemed economically viable, project sponsors face the challenging task of securing the significant up-front investment for construction costs, and of sustaining public and political support and stakeholder consensus. We've found that, in other countries with high-speed rail systems, the central government generally funded the majority of up-front costs of high-speed rail lines. The \$8 billion in Recovery Act funds for high-speed rail represents a significant increase in Federal funds available to develop new or enhanced intercity passenger rail service. This amount, however, represents only a small fraction of the estimated costs for starting or enhancing service on the 11 federally-authorized high-speed corridors.

Furthermore, the challenge of sustaining public-sector support and stakeholder consensus is compounded by long project lead times, the diverse interests of numerous stakeholders, and the absence of an established framework for coordination and decision-making.

Moving on to my second point: FRA's strategic plan attempts to address the absence of an institutional framework for investments in high-speed rail. In our recent report, we discuss the need for clear identification of expected outcomes, ensuring the reliability of ridership and other forecasts to determine the viability of high-speed rail, and including high-speed rail with a reexamination of other Federal surface transportation programs to clarify Federal goals and roles, link funding to needs and performance, and reduce modal funding stovepipes.

FRA's strategic plan is more a vision than a plan. For example, it does not define goals for investing in high-speed rail, how these investments will achieve them, and how the Federal Government will determine in which corridors it should invest.

FRA views its strategic plan as a first step in planning Federal involvement. FRA has emphasized that it will involve stakeholders to help to flesh out its approach to developing high-speed rail that are under its control. FRA officials also told us that it plans to spend Recovery Act funds in ways that show success to help keep long-term political support for these projects at the local level.

In conclusion, the infusion of up to \$8 billion in Recovery Act funds is only a first step in developing potentially viable high-speed rail projects. The host of seemingly intractable issues, such as their high costs, uncertain ridership, and need for broad political support, that have hampered development of these projects, are still with us, and these issues will need to be resolved to effectively spend Recovery Act funds.

Surmounting these challenges will require Federal, State, and other stakeholder leadership to champion the development of economically viable high-speed rail corridors, and the political will to carry them out. It will also require clear, specific policies and delineations of expected outcomes and realistic analysis of ridership, costs, and other factors, to determine the viability of projects and their transportation impact.

Mr. Chairman, this concludes my statement. I would be pleased to answer any questions you or other members of the Subcommittee might have.

[The prepared statement of Ms. Fleming follows:]

PREPARED STATEMENT OF SUSAN A. FLEMING, DIRECTOR, PHYSICAL INFRASTRUCTURE ISSUES, U.S. GOVERNMENT ACCOUNTABILITY OFFICE

Mr. Chairman, Ranking Member Thune, and Members of the Subcommittee:

I am pleased to be here today to discuss the implementation of high-speed intercity passenger rail projects in the American Recovery and Reinvestment Act of 2009 (the Recovery Act). The \$8 billion provided by the Recovery Act for high-speed and other intercity passenger rail projects has focused more attention on and generated a great deal of anticipation about the possibility of developing high-speed rail systems in the United States. These projects are seen by some as serving an important transportation role, by moving people quickly and safely, reducing highway and airport congestion, and being environmentally friendly. My statement today focuses on: (1) the factors that we have identified that affect the economic viability of high-speed rail projects and (2) how the Federal Railroad Administration's (FRA) recent strategic plan incorporates those factors.¹ My testimony is based on our recent report on high-speed rail, our review of FRA's strategic plan, and discussions with FRA and selected transportation experts.²

In summary, we found that while the potential benefits of high-speed rail projects are many, these projects—both here and abroad—are costly, take years to develop and build, and require substantial up-front public investment, as well as potentially long-term operating subsidies. Determining which, if any, high-speed rail projects may eventually be economically viable will rest on factors such as ridership potential, costs, and public benefits. FRA largely agrees with our March report. FRA's strategic plan for high-speed rail outlines, in very general terms, how the Federal Government may invest the \$8 billion in Recovery Act funds for high-speed rail development. However, this plan does not establish clear goals for the Federal Government in high-speed rail—other than establishing a “longer term goal of developing a national high-speed intercity passenger rail network of corridors”—and does not define a clear Federal role for involvement in high-speed rail projects other than providing Recovery Act funds. As such, in our view, it is more a vision than a strategic plan. As part of a discussion to prepare for this hearing, FRA told us that it sees its strategic plan as a first step and that it intends to seek structured input from stakeholders and the public to help develop strategies to implement its vision.

Factors That Affect the Economic Viability of High-Speed Rail Projects

The factors affecting the economic viability of high-speed rail projects include the level of expected ridership, costs, and public benefits (*i.e.*, the benefits to non-riders and the Nation as a whole from such things as reduced congestion), which depend on a project's corridor and service characteristics. High-speed rail is more likely to attract riders in densely and highly populated corridors, especially where there is congestion on existing transportation modes (such as highways or airports). Characteristics of the proposed service are also a key consideration because high-speed rail is more likely to attract riders where it compares favorably to travel alternatives in terms of trip times, frequency of service, reliability, and safety. Costs largely hinge on the availability of rail right-of-way, and a corridor's terrain. To stay within financial or other constraints, project sponsors typically make trade-offs between cost and service characteristics.

Once projects are deemed economically viable, project sponsors face the challenging tasks of securing the significant up-front investment for construction costs and of sustaining public and political support and stakeholder consensus. We found that in other countries (France, Japan, and Spain) with high-speed intercity pas-

¹By economically viable, we mean that a project's total social benefits offset or justify the project's total social costs.

²See GAO, *High-Speed Passenger Rail: Future Development Will Depend on Addressing Financial and Other Challenges and Establishing a Clear Federal Role*, GAO-09-317 (Washington D.C.: Mar. 19, 2009); and Federal Railroad Administration, *Vision for High-Speed Rail in America* (Washington D.C.: April 2009). We conducted this performance audit from May 2009 to June 2009 in accordance with generally accepted government auditing standards. These standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

senger rail systems, the central government generally funded the majority of the up-front costs of high-speed rail lines.³ The \$8 billion in Recovery Act funds for high-speed rail (and other intercity passenger rail) lines represents a significant increase in Federal funds available to develop new or enhanced intercity passenger rail service. This amount, however, represents only a small fraction of the estimated costs for starting or enhancing service on the 11 federally authorized high-speed rail corridors. For example, the San Francisco-Los Angeles portion of the California high-speed rail corridor alone, which already has about \$9 billion in state bonding authority, is estimated to cost about \$33 billion.⁴ Furthermore, Federal funds for high-speed rail in the past (as with the Recovery Act) have been derived from general revenues, not trust funds or other dedicated funding sources. This makes ongoing capital support for high-speed rail projects challenging, as they compete for funding with other national priorities such as health care, national defense, and support for ailing industries. In addition, the challenge of sustaining public-sector support and stakeholder consensus is compounded by long project lead times, the diverse interests of numerous stakeholders, and the absence of an established institutional framework for coordination and decisionmaking.

FRA's Strategic Plan Is a First Step

FRA's strategic plan attempts to address the absence of an institutional framework for investments in high-speed intercity passenger rail service. In our recent report and in 2005,⁵ we discussed the need for:

1. Clear Federal objectives and clear roles for all stakeholders (Federal, regional, state, and local governments and freight, commuter, and passenger railroads).
2. Clear identification of outcomes expected.
3. Ensuring the reliability of ridership and other forecasts to determine the viability of high-speed rail projects.
4. Including high-speed rail with a reexamination of other Federal surface transportation programs to clarify Federal goals and roles, link funding to needs and performance, and reduce modal stovepipes that hinder financing transportation improvements that will lead to the greatest improvements in mobility.

FRA's plan, which the Recovery Act required the FRA to issue 60 days after the Act was signed, outlines in very general terms how the FRA will allocate the Recovery Act high-speed rail funds. It does not define goals for investing in high-speed rail, how these investments will achieve them, how the Federal Government will determine which corridors it could invest in, or how high-speed rail investments could be evaluated against possible alternative modes in those corridors. In our opinion—and as FRA recognizes—this strategic plan is a first step in planning Federal involvement. FRA has emphasized that its approach is to involve the ultimate “owners” of high-speed rail—the states and communities in which they will reside—to help flesh out the approach to developing high-speed rail that are under its control. FRA officials also told us that it plans to spend Recovery Act funds in ways that show success to help keep long-term political support for these projects at the local level.

Overall, FRA generally agrees with the issues that we raised in our March report, with the report's recommendations, and with the observations that we are making today. Last week, FRA took its next step by issuing interim guidance for applying for Recovery Act funds.⁶ The guidance lays out the evaluation criteria for grant funding, the weights to be applied to the criteria, and the selection criteria.

In conclusion, the infusion of up to \$8 billion in Recovery Act funds is only a first step in developing potentially viable high-speed passenger rail projects. The host of seemingly intractable issues that have hampered development of these projects remain as challenges, and these issues will need to be resolved to effectively spend Recovery Act funds. Surmounting these challenges will require Federal, state, and other stakeholder leadership to champion the development of economically viable high-speed corridors and the political will to carry them out. It will also require clear, specific policies and delineations of expected outcomes, and objective, realistic analysis of ridership, costs, and other factors to determine the viability of projects and their transportation impact.

³GAO-09-317.

⁴The corridor would extend from Sacramento and San Francisco through Los Angeles to San Diego.

⁵GAO-09-317 and GAO, *21st Century Challenges: Reexamining the Base of the Federal Government*, GAO-05-325SP (Washington D.C.: February 2005).

⁶A link to the guidance can be found in 74 Fed. Reg. 28770 (2009).

Mr. Chairman, this concludes my prepared remarks. I would be pleased to answer any questions you or other Members of the Subcommittee may have.

Senator LAUTENBERG. Thank you very much, Ms. Fleming.

And now, Mr. Skancke, we welcome you and invite you to give your testimony.

**STATEMENT OF TOM R. SKANCKE, COMMISSIONER,
NATIONAL SURFACE TRANSPORTATION POLICY
AND REVENUE STUDY COMMISSION**

Mr. SKANCKE. Thank you, Mr. Chairman.

The tough part about being the caboose is that you cover a lot of track that the previous train has covered.

[Laughter.]

Mr. SKANCKE. Keeping in light with all the other——

Senator LAUTENBERG. Get that mike a little closer, please.

Mr. SKANCKE. Good afternoon, Chairman Lautenberg, Ranking Member Thune, and Members of the Committee. Thank you for allowing me to have the opportunity to testify today.

In 2005, I was appointed to the National Surface Transportation Policy and Revenue Study Commission by Senate Majority Leader Harry Reid. In January 2008, after 2 years of meetings, hearings, and research, our Commission recommended to Congress a vision for transportation policy and funding in America, a new vision, which includes a framework that will reform, and hopefully revolutionize, the way we do transportation policy and funding for the next 50 years.

One of our recommendations was substantive reform of our passenger rail system. Over the next half century, the United States is projected to add 150 million new residents, a 50-percent increase over its current population. This increase will cause travel to grow at an even greater rate than the population will. We will need to provide new modal choices, which will require a cultural shift for the traveling public.

We presented our report to Congress in January 2008. We recommended that the entire country should be connected by passenger rail by the year 2050. The recommendations also defined that the passenger rail corridors should connect population centers within 500 miles of each other.

Just 11 months later, the GAO concluded that the existing intercity passenger rail system is in poor financial condition, and the current structure does not effectively target Federal funds to where they provide the greatest public benefit, such as transportation congestion relief. Corridor routes generally less than 500 miles in length have higher ridership, perform better financially, and appear to offer greater potential for public benefit.

We also recommended to Congress that our Nation invest at least \$8 billion per year over the next 50 years in passenger rail systems. President Obama, Senator Reid and this Congress realized that that investment in passenger rail is needed now, not over the next 50 years. So, \$8 billion was put into the stimulus bill to, not only create jobs, but to kick-start the program to begin a valued new vision for America's transportation modes. I think this President, Senator Reid and this Congress have a vision for trans-

portation in our Nation, and it is much like that of President Eisenhower, which is: connecting America.

The United States is way behind the curve in passenger rail service, as we all know. The Far East, Near East, Europe, and the Middle East have been investing billions in passenger and freight rail systems for many years. Our lack of vision and investment is deteriorating our global competitiveness and our quality of life. The Nation's new vision should not just focus on existing passenger rail lines, but should expand beyond the current corridors.

In my opinion, the vision should include a Western connection, much like the recommendation of our commission. Connecting all 22 Western States in phases, as a system, not as pieces, should be a priority. The first phase of a Western connection is currently being considered and underway, which is the Desert Express high-speed rail passenger corridor connecting Victorville, California to Las Vegas. This project will ultimately connect Victorville to Palmdale, California, thus tying into the California high-speed rail system from Los Angeles to San Francisco. This project will eventually connect three major Western metropolitan megaregions, each project meeting the criteria set out by our commission and the GAO for being corridors of 500 miles or less.

This vision is one that takes leadership and courage to get it done. It can be done, and it should be done. I know, having grown up in Sioux Falls, South Dakota, it sure would have been nice to have taken a 40- or 60-minute train ride to Minneapolis for my Thanksgiving holidays or a Vikings game. But, instead I was stuck at home in a blizzard, because we had to travel by car.

Yes, these systems will be costly to design, fund, and construct, but we can do this. This is the United States of America.

Mr. Chairman, I have three policy changes for this Committee to consider in the new authorization. First, we must agree upon a bold new vision and make the cultural shift in the way we do transportation, a vision the American public can invest in, and believe in, and includes passenger rail that connects America, much like the Eisenhower Interstate Highway System did. We must do it today—we must do today what our parents and our grandparents did for us: invest in a new vision, reform the new program, and revolutionize the way we do transportation policy and funding.

Second, we must reduce the time it takes to deliver a rail project in this country. Twenty years in new starts is just too long. We need to get our projects delivered in 3 to 5 years. This is not environmental streamlining, as some would like to call it. It's process delivery. Agencies cannot just sit on projects. We need to create—we do not need to create an oversight office, we just need to get the projects out. We don't need to open up the NEPA process to get this done, it can be done by reviewing duplicative services.

Third, the system must be performance-based and outcome-driven. Key performance measures for rail systems would include reliable, on-time performance, congestion mitigation, safety and environmental benefits, improved choices, mobility options for all communities, and reduced energy use. The systems need to be in their own rights-of-way, have a minimum amount of shared track in metropolitan areas, and on-time delivery for passenger predictability. It needs to be reliable, or the public won't use it.

In closing, Albert Einstein once said, and I quote, “Without changing our patterns of thoughts, we will not be able to solve the problems we created with our current patterns of thoughts.” So, let’s change our patterns of thoughts so that we can solve the problems we created with our current patterns of thoughts.

Mr. Chairman, you should be commended for having this hearing today to talk about high-speed passenger rail. Your leadership demonstrates that change is in Washington, D.C., and it is right here in this Committee. Passenger rail is the future for moving Americans, and now is the time to make that investment. We need to restore hope in performance and our transportation system. Our fellow citizens are counting on us to get it done.

Thank you.

[The prepared statement of Mr. Skancke follows:]

PREPARED STATEMENT OF TOM R. SKANCHE, COMMISSIONER, NATIONAL SURFACE
TRANSPORTATION POLICY AND REVENUE STUDY COMMISSION

Good afternoon, Chairman Lautenberg, Ranking Member Thune, and members of the Committee. For the record my name is Tom Skancke. In 2005, I was appointed to the National Surface Transportation Policy and Revenue Study Commission (the Commission) by Senate Majority Leader Harry Reid.

In January 2008, the Commission recommended to Congress a new vision for transportation policy and funding in America; a new vision which includes a framework that will reform our current transportation program which is obsolete.

The Commission spent nearly two (2) years putting together a policy and funding framework for the next fifty (50) years for our Nation. That framework included substantive policy recommendations for both high-speed intercity passenger rail (HSICPR) and intercity passenger rail (ICPR) systems.

The Commission agreed that the role of HSICPR and ICPR will need to be much more significant in the next 50 years as our Nation should offer more modal choices to our ever increasing mobile public.

Over the next half-century, the U.S. is projected to add 150 million new residents, a 50 percent increase over its current population. This increase will cause travel to grow at an even greater rate than the population will. This Nation cannot build our way out of this growth with more highway lane miles. We must offer our citizens other modal choices.

Transportation planning, designing and constructing takes a great deal of vision. A vision is what President Eisenhower had in the 1950s when he created The Clay Commission. That commission made recommendations to the President and Congress as to how the United States would fund and build the Interstate Highway System we have today.

In 1955, President Eisenhower stated and I quote, “Our unity as a nation is sustained by the free communication of thought and by easy transportation of people and goods . . . Together the unifying forces of our communication and transportation systems are dynamic elements in the very name we bear—United States. Without them we would be a mere alliance of many separate parts.”

Over the past 25 years, President Eisenhower’s worst nightmare has occurred . . . our Nation has become an alliance of many separate parts when it comes to transportation infrastructure as it relates to moving our people across this great land. We have forced the American public into cars and have made them sit in hours of congestion. This congestion is costing our economy billions of dollars in lost time and production output. In addition to not offering American’s modal choices we have not offered them a bold vision to invest in. Future generations are counting on us to get this right just like our grandparents and parents did for us.

When our Commission presented our report to Congress in January 2008, we recommended that the entire country should be connected by HSICPR by 2050. The recommendations also defined that the corridors should connect population centers within 500 miles of each other. Just 11 months later, in November 2008, the federal Government Accountability Office (GAO) concluded that: “The existing intercity passenger rail system is in poor financial condition and the current structure does not effectively target Federal funds to where they provide the greatest public benefits, such as transportation congestion relief. Routes of 750 miles or more, while providing service for some rural areas and connections between regions, show limited

public benefits for dollars expended. These routes account for 15 percent of riders but 80 percent of financial losses. "Corridor" routes (generally less than 500 miles in length) have higher ridership, perform better financially, and appear to offer greater potential for public benefits."

Our Commission recommended to Congress that our Nation needs to invest at least \$8 billion over the next 50 years in an HSICPR/ICPR systems for our Nation. President Obama and Senate Majority Leader Harry Reid (D-NV) realized that the investment in passenger rail systems is needed NOW not over the next 50 years. So \$8 billion was put into the ARRA legislation to kick start the program and begin a valiant new vision for America's transportation modes. Here's a question for all of us to ponder. If a high-speed passenger rail system can be built in Europe and China . . . why can't a 21st Century passenger rail system be built in the United States? In my opinion, the U.S. should be the leaders in HSICPR not the followers.

As you know, HSICPR is the preferred transportation mode in the Far East, Near East, Europe and now in the Middle East. Qatar and Kuwait are spending \$10 billion each (\$20 billion total) in the next 3-5 years on HSICPR. The United Arab Emirates (UAE) is spending twice that on bullet trains, monorails, HSICPR and major transit facilities throughout Dubai—the first of which is supposed to open in September of this year.

China is spending hundreds of billions of dollars on HSICPR connecting the Far East to the Near East and ultimately, the Middle East. Further, China believes that an eventual connection to Europe is fundamental to establishing their future economic viability and sustainability. Should this vision become reality, Europe connecting to the Far East will give both regions a competitive economic advantage over the rest of the world. The U.S. will be second or third in the world. Is that what we want to be . . . second or third?

The Nation's new vision should not just focus on existing passenger rail lines but should expand beyond the current corridors. The vision should include a western connection much like the recommendation of the Commission by connecting all 22 western states in phases. The first phase of a western connection is currently underway with the Desert Xpress high-speed rail project planned to connect Victorville, California to Las Vegas. This project will ultimately connect Victorville to Palmdale, California tying into the California high-speed rail system from Los Angeles to San Francisco, California. This is a connection that will ultimately connect three (3) major metropolitan mega regions. Each project meeting the criteria set out by the Commission and the GAO for being corridors of 500 or less.

This vision is one that takes leadership and courage to get it done but it can be done and should be done. Yes it will be costly to design, fund and construct . . . but we can do this . . . we're the United States of America.

To me, the role of HSICPR has been defined for many years. What we lack is a vision and the courage to tell our fellow Americans that we're going to make a cultural shift in how we offer choices in our transportation system. Continuing to force the driving public to sit in hours of congestion is just unacceptable and environmentally irresponsible.

Reconnecting America with a new vision and new mode is what this Nation needs at this point in our history and staggering economy. We cannot wait.

I recommend three policy changes that need to be made immediately.

First is the amount of time it takes to deliver a transit or rail project in our Nation. When we add one Federal dollar to any transportation project in our Nation, we add 5-8 years to the process. That is NOT just the environmental impact process, that's the entire process. It's the duplicative reviews of agencies, laws passed in the 1960s for a 20th Century economy, a review process that has no performance measures and a broken transportation program. A new starts project in this Nation takes 15-20 years to deliver. This long drawn out process does not give the U.S. a global competitive edge. A \$1 billion project today at the end of the 15 year process is \$3-4 billions more costing the tax payers billions in waste. Passenger rail and transit is proven to reduce highway congestion and increase air quality. We are being environmentally irresponsible when it takes 20 years to do a rail project. This must be changed and it cannot be compromised.

Second, Congress must adopt a bold vision in order to convince the American tax payer that high-speed rail is a mode of transportation for our people. We cannot continue to set up our current passenger rail systems to fail. We must build a new system with a new vision. President Eisenhower had a vision for the interstate highway system, President Obama has a vision for high-speed passenger rail. As a nation, we must invest in multi-modal options to compete globally and to improve each American's quality of life.

We must do today what our parents and grandparents did for us . . . invest in a new vision, reform the current program and revolutionize the way we do transportation policy and funding. America is counting on us to do it. Eisenhower's vision in the 1950s got us to where we are today. That vision made us the economic super power we have been. We must continue that tradition.

Third, we must create a performance-based outcome-driven system. Key performance measures for the rail system would include reliable on-time performance, congestion mitigation, safety and environmental benefits improved choices, mobility options for all communities and reduced energy use. The passenger rail system would be based on a cost-benefit analysis that includes both the user and non-user benefits of passenger rail. The system needs to be in its own rights-of-way, minimum amount of shared track in metropolitan areas, and on-time delivery for passenger predictability. It needs to be reliable or the public won't use it.

Albert Einstein once said and I quote, "Without changing our patterns of thoughts, we will not be able to solve the problems we created with our current patterns of thoughts."

So let's change our patterns of thought so that we can solve our problems we created with our current pattern of thoughts.

Mr. Chairman, you should be commended for having this hearing today to talk about high-speed passenger rail. Passenger rail is the future for moving Americans and now is the time to make the investment. We need to restore hope in and performance in our transportation system.

Our fellow citizens are counting on us.

Senator LAUTENBERG. Thank you all very much for your excellent testimony.

I think what we'll do is allow 6 minutes for each person.

And I would ask Governor Rendell a question, and that is—President Obama has made high-speed rail a priority. He started with \$8 billion in the Recovery Act. The President also proposed a billion dollars for each of the next 5 years for high-speed rail. What sources of funding might Congress consider for these future high-speed rail investments?

But before I ask you to answer, I would say, you've got to be a little cautious with suggesting the climate change money; we are working arduously to solve many problems, some of them more severe than others. Among them is our infrastructure, including the focus today on rail, but also on climate change, to make it possible for generations that follow to be able to breathe the air and conduct a healthy life. And one of the best things for climate change, as I think you've said, is high-speed rail, efficient rail.

So, what sources of funding might Congress consider for these future high-speed rail systems? And you said earlier, and I concur with you, that \$13 billion is not a lot of money. When you think of the neglect that's taken place over the years, what we've invested in rail is pitiful by comparison. And to think of the needs addressed by rail, not only of more efficient operations and less importation of oil, et cetera, but the security needs for the country to be able to function in times of emergency.

So, again, should passenger rail and the development of high-speed service receive dedicated Federal funding, like our interstate highway system, our aviation system? And that is really the first part of the question I ask.

Governor RENDELL. Well—there's a sportswriter in Philadelphia who writes a column once a month, and he entitles it, "If I Were King of the World," and he delineates all the changes he would make in sports, professional sports. Well, if I were king of the

world, we'd stop messing around. Every one of the G-7 nations has undertaken massive infrastructure repair programs. Japan and Germany, countries a fraction of our size, have spent over a trillion dollars, at one time, in a 5- to 10-year infrastructure repair program.

That's what we should be doing as a Nation. We should finance it through a capital budget, and we should change the way we score such financing mechanisms. It's the only way we're going to ever get this done. I mean, we're kidding ourselves. We're doing something to pat ourselves on the back, and saying—boy, I heard Secretary LaHood, who I think is terrific. He said, “\$13 billion is terrific, it's better than we've ever had—\$13 billion is better than nothing.” Well, sure it is, but it doesn't get us anywhere down the road.

We can't do infrastructure on the cheap. We have to invest what we need to invest, and we have to find a way to do it. And we have to find the political courage to find a way to pay for it. I think a capital budget is long overdue. I testified——

Senator LAUTENBERG. I agree with you.

Governor RENDELL. I testified as Mayor of Philadelphia——

Senator LAUTENBERG. I ran a pretty-good-sized company, and I can tell you, that if——

Governor RENDELL. No company would ever——

Senator LAUTENBERG.—we were operating on a cash basis, that would have been impossible.

Governor RENDELL. You wouldn't finance your capital needs out of operating costs. And we do. We finance building a bridge or a train system the same way we purchase paper clips in the Federal Government. It's nuts. It's time to change. It's time to change, and we'd better do it soon, because infrastructure is a lot like that Fram oil commercial, “You can pay me now,” and he holds up a filter—8.75—“or you can pay me later,” and he points to the dilapidated car—\$4,625. It's not getting cheaper. It's not getting cheaper.

Senator LAUTENBERG. You and I are very much on the same page, and all we have to do is convince about 85 others here that we're doing the right thing there.

Ms. Fleming, in your March 2009 report, you studied high-speed rail service in France, Japan, and Spain. Each of these countries has committed significant government support for its high-speed rail system. Is it realistic to expect a high-speed passenger rail service to be successful without government contributing toward capital and/or operating expense?

Ms. FLEMING. What we found is that there was a real commitment and priority in France, Spain, and Japan. And the majority of up-front construction cost was borne by the Federal Government—the central governments in these countries—without the expectation that they would recoup these initial investments. And what most of these countries did was to build an initial trunk line in order to show success, and then built upon that. So, the commitment followed with investing significant amounts of money, and that model allowed them to begin initial construction relatively quickly.

Senator LAUTENBERG. Thank you.

I'd like to ask you a question, Mr. Boardman, and hope that we can get a quick response. My understanding is that foreign-owned manufacturers of passenger cars, high-speed rail equipment are interested in competing for the \$8 billion that is provided in the Recovery Act. What can we do to encourage more American companies to enter into the high-speed rail manufacturing market?

Mr. BOARDMAN. Mr. Chairman, I was encouraged yesterday to see that, in the field hearing that the TNI had, GE Locomotive provided testimony, where they are ready, they said, to build the next generation of diesel high-speed, and their definition was 110–124. They had their CEO, Lorenzo Simonelli, at the hearing in Pittsburgh, and so I think they are catching on to the fact that there is a commitment here in this country, and I think that's the most important part of that.

Governor RENDELL. And the Commonwealth's investing \$7 million in helping them build that technology, Senator.

Senator LAUTENBERG. Thank you.

I'm going to turn to my Ranking Member, here, Senator Thune, for you, sir, to ask your questions.

Senator THUNE. Thank you, Mr. Chairman.

Governor, Senator Wyden and I have a proposal, called Build America Bonds, which I think is sort of geared at what you're talking about. It's a way of bonding for capital improvements. I agree entirely that the way that we budget around here defies any sort of common sense or, you know, rational basis for making these types of decisions. It's clearly not the way that these decisions would be made in the private sector, if you run a private business. And so, I appreciate your observations about that.

And I would say to Mr. Skancke that if Brett Favre is playing for the Vikings next year, there are going to be a lot more people who want to get from Sioux Falls to Minneapolis—

[Laughter.]

Senator THUNE.—and preferably quickly, and without having to drive through a blizzard.

If I might direct a question to Mr. Szabo and Ms. Fleming, the main thought I guess I take away from the GAO's testimony is the problem with developing reliable projections for ridership and costs. The concern is that overly optimistic proponents are going to overestimate ridership and underestimate costs, and that if Federal Government makes investment decisions based upon faulty forecasts, we're going to fund projects that won't be successful.

So, I guess the question—and maybe I direct this first to Mr. Szabo—is: How are you going to evaluate such projections for proposed projects, and are you going to use your own projections or rely on the project sponsor for those?

Mr. SZABO. Well, first off, one of the key components that we will be ranking the applications on will be their proposed management plan and their management of risk, which includes covering all of the operating costs and any cost overruns. Those responsibilities belong to the applicant, not the Federal Government. So, clearly it's in their best interest to protect themselves, to ensure that those forecasts are accurate.

One of the things that we plan to do is to use a template, where essentially applicants will provide the data to us, but we'll run that

data through our own calculations to ensure that, as we compare the projects, we're getting an apples-to-apples comparison. We believe that that will help ensure the integrity of the data, and help us make sure that we have accurate forecasts.

Clearly, at FRA, we understand the fact that the projects that we choose are going to have to be successful. We understand that we cannot squander this opportunity, that if we are not, in fact, very careful about the projects we select, and ensuring the success of the projects that we select, if we fumble that ball, then there won't be a next generation on this. So, we understand the responsibility that we have, and we're prepared to take that challenge.

Governor RENDELL. Senator, could I add something quickly to that question?

Senator THUNE. Yes.

Governor RENDELL. One of the ways to ensure that you're getting accurate estimates is, if a State's recommending it, make the State chip in some money, so that they bear the risk as well. Amtrak and Pennsylvania shared the \$145-million cost of the expansion of Philadelphia to Harrisburg.

Senator THUNE. That's a good suggestion, and one that we ought to, I think, take to heart when we start looking and evaluating these projects.

Mr. SZABO. Senator, it is a part of our plan.

Senator THUNE. It is, OK.

Let me ask Ms. Fleming, to follow up on that question, too. Do you believe there ought to be some outside neutral party that evaluates these forecasts, too?

Ms. FLEMING. Well, as you can imagine, ridership and other forecasts are key factors in determining whether a project or a system is going to be economically viable. And, unfortunately, results have shown that ridership tends to be overestimated, and costs tend to be underestimated. So, we feel that there are several ways to try to get at this issue to provide more reliable statistics.

The first would be following Governor Rendell's idea to obligate the State and local governments to share some of the risks of underestimated costs for those projects where they're seeking Federal assistance. Another way would be to obtain estimates and forecasts from independent sources, sources without stake in the specific project that's being considered. And, last, making the forecast subject to peer review, and maybe even making the data publicly available. So, I think those three things would maybe better insure that the information would be more reliable.

Senator THUNE. Mr. Szabo, after we've spent \$13 billion that's likely to be appropriated for high-speed rail over the next 5 years, do you expect the United States to have at least one corridor of substantial length that's served by a Japanese or European-style high-speed railroad?

Mr. SZABO. I think it's important that, first off, we wait and see what is applied for. You know, obviously I can't start commenting on what we're going to do until applications come forward and are weighed, graded, and then approved. But, clearly, again, I think we understand the need to ensure that we have very tangible, very substantial successes. And clearly—again, our vision is to follow the model of what the Europeans have advanced. You know, keep

in mind, when the system in Spain first opened up, Ms. Fleming talked about how essentially they began with one trunk line—they did, they began with their one trunk line, essentially it was six to eight trains a day, running about 125 miles-an-hour. And, from that, they were so successful that they incrementally made the improvements that got them to roughly 20 trains a day at speeds of 200 miles-an-hour.

So, this is going to take a build-out. A build-out much like the construction of the Interstate Highway System. And, again, we need to understand—the TGV system in France today, if you ride from Paris to Strasbourg when you come out of Paris, you’re doing approximately 200 miles-an-hour on dedicated right-of-way. But two-thirds along the way, you flow onto what they call traditional track, and you’re doing speeds of about 125 miles-an-hour. So, it’s not this either/or proposition.

Senator THUNE. Mr. Chairman, my time is expired, and I thank you all very much for your—

Senator LAUTENBERG. I’m called elsewhere. Senator Udall is going to take over, and Senator Boxer will be next, Senator Hutchison, and then it’s all up to Senator Udall, from New Mexico; he’s going to fix the whole problem.

[Laughter.]

**STATEMENT OF HON. TOM UDALL,
U.S. SENATOR FROM NEW MEXICO**

Senator UDALL [presiding]. Thank you, Mr. Chairman.
Senator Boxer?

**STATEMENT OF HON. BARBARA BOXER,
U.S. SENATOR FROM CALIFORNIA**

Senator BOXER. Senator Lautenberg, on your way out the door, I just want to thank you very much for this hearing, sir. High-speed rail is critical, it’s just really critical.

I want to pick up on Senator Thune’s comment about the funding. Senator Thune, I just want to pick up on your points about the funding, because they’re very critical.

This \$13 billion, standing alone, just can go so far, but in my State we had an election about putting a \$9-billion funding package, and the people voted “aye,” which was kind of remarkable, given the latest votes that we had. So, you know, the people there really understand it. And our system, and—I bet most everybody in this room has been to my State—it will eventually connect Sacramento, our State capital, to San Diego in the south, but the first phase will be between Los Angeles and San Francisco and points in between.

I also want to point out, the private sector has to be leveraged into this, too. In California we’re working with the private sector. So, you take the \$13 billion, and you add the \$9 billion from my State, hopefully billions from other States, and hopefully billions from the private sector that you can get involved in it, and it starts to look like something on the scale—not quite what Governor Rendell wants, I don’t think, because I think he even has a bigger plan, but I think you start to leverage, and you start to see some real things happening.

And I wanted to just point out that our studies—and if I am saying something that has been disproven, let me know—show that our high-speed rail in California is projected to save 12.7 million barrels of oil a year by 2030, and reduce CO₂ emissions by 12 billion pounds per year—supposed to be 160,000 construction jobs, and literally they're saying, California, hundreds of thousands of permanent jobs by 2035.

So, I think, as we look at a lot of the problems facing us, this great recession, the CO₂ problem, the need to be energy independent, the need to make people feel comfortable getting out of their car, this seems to be one place.

And so I have two questions. The first one—both of them, actually, are to Administrator Szabo. What is your long-term plan for development of high-speed rail, nationally? And, what factors do you consider the most important when it comes to funding? Will a State contribution bear some weight here?

Mr. SZABO. Yes, in the guidance that we issued, that is one of the elements that, while not mandatory in most of the funding tracks that we provide, it certainly is something that is weighted, and certainly is something that is encouraged.

Our vision, frankly, matches what they have done in Europe. And I think it's important to note—you can compare it a little bit to the road system, where you have local roads, you have county roads, you have State highways, you have U.S. highways, and you have an interstate system. And all play a very, very important role, and they all interconnect with each other to provide, hopefully, a first-class road system.

Our approach will need to be the same on rail, just like it is in Europe. In Europe, in Japan, not every train is going 200 miles-an-hour. Many of them are, but there continues to be a niche in the market for 110-mile service, there continues to be a niche in the market for traditional 79-mile-an-hour service—

Senator BOXER. OK. But, my main point is, will State effort matter to you?

Mr. SZABO. Absolutely.

Senator BOXER. OK, that's my—

Mr. SZABO. Absolutely.

Senator BOXER.—point.

Mr. SZABO. Critical element.

Senator BOXER. OK.

Mr. SZABO. Yes, absolutely.

Senator BOXER. I said I had two questions, and I have three. That's one.

The second one is to Mr. Skancke, who served as a Commissioner on the National Surface Transportation Policy and Revenue Study Commission. He has been very important in advising us, in the EPW committee, on how to proceed with the next highway bill, et cetera.

And then I have the last question, to Mr. Szabo.

So, Mr. Skancke, do you believe DOT has a realistic and workable plan to implement high-speed rail nationally? And, what steps must they take to ensure we have a sustainable system in the U.S.?

Mr. SKANCKE. Senator Boxer, I don't think the Nation, as a whole, has a plan for high-speed rail. You know me very well to know that I'm very candid when I answer questions, so I'll try to be as candid as I can.

Senator BOXER. Well, that's why I asked it.

Mr. SKANCKE. I think our Nation lacks a vision on how we're going to move our American public out to 2050. It's why this Congress, in SAFETEA-LU, created the Transportation Commission. And, I think the way we get there is, we have to sell the American public, particularly on rail, as we get people out of their own horse and buggy, which we have forced them into, that it is a cultural shift.

We have got to convince the American public that high-speed passenger rail is going to be predictable, that it's going to be on time, and it's going to be reliable. And we do that two ways. One, we just make the investment. We don't talk about what the program's going to look like, or how it's going to—we've done that. We've studied corridors. We know what the alignment should look like. I believe that we just need to do it. We need to step up, fund it, find the funding mechanisms that are needed, and make the necessary investment.

Senator BOXER. OK—

Mr. SKANCKE. I think it's just that simple.

Senator BOXER. So, my last question—you said, "predictable, reliable," and you had another word.

Mr. SKANCKE. Dependable, I think is what I said.

Senator BOXER. Predictable and reliable, but you didn't say safe, and of course you—it's obvious.

Mr. SKANCKE. I—yes, obviously.

Senator BOXER. Safe. It's got to be safe. So, my last question deals with this tragedy that just occurred on the Metroliner here.

We just wrote a letter, Senator Rockefeller and I, to talk about the need to move forward with positive train control and other life-saving measures, because we really are going to have to address this. This was awful, and we've seen these things happen in my State. So, my question to you, and my last question is, do you intend to move forward with positive train control, and do it quickly, so that we can let people know we're moving forward on the safety question?

Mr. SKANCKE. Yes, absolutely. First off, we have a Congressional mandate to ensure that positive train control is implemented by the year 2015, and it's our intent to make sure that that deadline is met.

Second, it's impossible to talk about high-speed rail without, at the same time, talking about positive train control. Again, you're using the European models, you know, they have their European train control, you can't have trains going 200 miles-an-hour—

Senator BOXER. Right.

Mr. SKANCKE.—if you don't have some element of positive train control.

Senator BOXER. Right, but we got—

Mr. SKANCKE. Fundamental.

Senator BOXER. We've got to fix it for the ones we've got going now. So, I hope you'll move quicker than 2015. That was—some

places, I have to compromise, but I think it needs to be swifter than that.

Thank you, so much, Mr. Chairman.

Senator UDALL. Thank you, Senator Boxer.

Senator HUTCHISON?

Senator HUTCHISON. Thank you, Mr. Chairman.

Let me start with Judge Eckels, and just ask that—well, let me first state that I hope that there will be funding for projects other than those that are maybe further along than the Texas T-Bone. And, if you could apply right now for Federal funding in part of the stimulus, what would you ask for it to do?

Mr. ECKELS. Today, our biggest need is the market and route, environmental and engineering studies. Before we go on the ground with a system, we want to make sure it's a system that will be viable, will have the market that will support the system. Unlike the East Coast, we don't have regular service between Houston and Dallas today, and so, to develop one, we need to make sure that we are building a system which can be priced so that we can compete with the automobiles, with the aircraft, and also to keep an operational system.

I do think bringing the discipline of the marketplace to the system can help set a fare schedule and a construction—you know, the technology that will make sense and will be viable for the long-term, for the State.

Senator HUTCHISON. Let me ask Mr. Szabo—I'm looking at a map of the Amtrak system, with the high-speed corridors that have been designated, the 11 that have been designated, in the darker red. Is this the beginning of a planned system, that those are investments that are already being made? Do you favor the ones that are already in the Amtrak system being upgraded to high-speed, or are you looking at other factors like a new high-speed rail project that might feed into Amtrak, and therefore enhance Amtrak's capabilities?

Mr. SZABO. One of the next steps that we absolutely must take is the development of a national rail plan. And, when I say that, I mean it from a most comprehensive standpoint. We have to understand how high-speed rail is going to overlay on traditional intercity rail, how commuter rail is going to overlay on top of that, and frankly, we have to understand how it's going to interact with the freight rail network. So there are all these components that need to be looked at to ensure that we have a comprehensive strategy when it comes to rail. You can't talk about high-speed rail without talking about the impact on freight rail.

You know, that map is a document that happens to exist today, but certainly there's the need for a much bolder, clearer vision, and a national strategy on how to get there.

Senator HUTCHISON. Have you ever talked, or even put on the table, with the Amtrak corridors that share freight rail lines—which make for problems of on-time service—

Mr. SZABO. Yes.

Senator HUTCHISON.—which then cause problems at the fare box—have you ever put on the table adding a line on the same corridor as the freight rail? Which, if you could get a reasonable deal, like maybe free use of that space in exchange for getting out of the

freight-rail system, which would certainly benefit them, because they don't like dealing with Amtrak. Have you ever thought about trying to get a second rail on the same right-of-way as one of the ways for higher speed rail service in highly congested corridors?

Mr. SZABO. Well, I think clearly there are multiple options. The key is that whatever we do—and, clearly, if we're going to have high-speed rail, true high-speed rail, it has to be on a dedicated corridor—but, whatever we do, we're going to have to ensure that we achieve a win-win relationship with the freight industry. We have an obligation to make sure that if the passenger trains are operating, that they're operating on time. Clearly reliability is a very critical component of ensuring a high quality passenger rail operation, and growing ridership.

Senator HUTCHISON. Have you looked at having a separate track, though, to make that happen? I mean, you can talk about reliability, but in reality, at least on the *Sunset Limited* and the *Texas Eagle*, that I know so well, the experience has not been good.

Mr. SZABO. Yes. I mean, again, any of these options can be considered.

Senator HUTCHISON. Well, I would ask if, in the parameters of the spending of this stimulus money, if looking at those congested areas where you might be able to get a more streamlined service for high-speed rail, if a separate passenger line might be an option.

Mr. SZABO. Certainly that could be a component that would be measured in a State's application to us. There are clear advantages to that, as far as reliability, which is one of the components. We measure safety, which is another one of the components we measure. So, again, if that was part of an application, it's a criterion that could be viewed very favorably.

Senator HUTCHISON. So, a State effort is one criteria that would be very important for matching funds, and then, possibly, if you could ease congestion for better service and higher speed rail, that would also be a good factor.

Mr. SZABO. That's right. Yes.

Senator HUTCHISON. Judge Eckels, let me just ask you if—obviously the Texas T-Bone is not going to be looking at an Amtrak route, but are there options on the Texas T-Bone that might provide dual rail with a freight line, or are you looking at a different all-new right-of-way?

Mr. ECKELS. Senator, in the very fast-track portion of the system—and again, as Mr. Szabo pointed out—Administrator Szabo—the system would have to have its own tracks. And, you know, we think the whole system should be a separate track anyway. But, as you described, within the urban corridors, particularly as we are working our way into the cities, on the Highway 290 corridor coming into Houston, or on the Hardy Toll Road Corridor in the north, we tie in and partner with the Harris County Toll Road Authority, the Texas Department of Transportation, Union Pacific Railroad, the Houston Harris County Metropolitan Transit Authority, the Metro service provider, then the high-speed rail and right-of-way, and can share a common corridor. And the idea, where it's appropriate, to lay a track adjacent to the freight railroads—and there are a number of places where that makes a lot of sense, particularly in those urban corridors, where you have a constricted right-

of-way to get into the city through the dense population centers, it makes the most sense for us.

As we move out, it depends on the demand that we get from the freight side for the increased capacity in the future. We have found them to be very reluctant to give up that right-of-way, claiming that they need that for future development, and it's theirs. And so, it's a continuous problem. But, we think it makes great sense. We're not taking a lot of new right-of-way. We'd like to consolidate as much as possible with TxDOT on their right-of-way, and with the rail lines, to the extent that we can meet the curvature requirements and the technical requirements.

Senator HUTCHISON. Yes, I just think coming to some realistic terms with the freight rail carrier is going to be in everyone's interest, because they have a business to run, and you can understand their wanting to keep control of their tracks. That's why I think getting, sort of, separated out, where we can, but not having the huge expense of eminent domain, and those issues.

Mr. ECKELS. There are many places, Senator, where it's cheaper for us to relocate the freight rail, and buy them a new right-of-way and a new freight rail corridor, and new yards, and take over their right-of-way, than for us to go try to condemn a new right-of-way somewhere along the line. And there are places where that makes sense for the freight rail as well, and we're working on that in Texas.

Senator HUTCHISON. Well, thank you very much.

My time is up. But I appreciate all of your coming in and helping us get through this, because it is a very important new capability for America to have true multimodal planning for transportation.

Thank you.

Mr. ECKELS. Thank you, Senator.

Senator UDALL. Thank you, Senator Hutchison.

As Senator Boxer was leaving, she mentioned the letter between she and Senator Rockefeller, and asked that it be put as part of the record, that was the letter on the positive train control. If there's no objection, it will be ordered to be part of the official record.

[The information referred to follows:]

UNITED STATES SENATE
Washington, DC, June 22, 2009

Hon. PATTY MURRAY,
 Chairman,
 Transportation, Housing and Urban Development,
 Appropriations Subcommittee,
 Washington, DC.

Hon. CHRISTOPHER BOND,
 Ranking Member,
 Transportation, Housing and Urban Development,
 Appropriations Subcommittee,
 Washington, DC.

Dear Madam Chairman Murray and Ranking Member Bond:

We respectfully request that the railroad safety technology grants program authorized in the Rail Safety Improvement Act of 2008 (RSIA) (P.L. 110-432) be fully funded, at a minimum, in the Fiscal Year 2010 (FY10) Transportation, Housing and Urban Development Appropriations bill. These grants were authorized at \$50 million for FY10. This new program will provide critical funding for the implementation of positive train control and other necessary safety improvements.

Last October, Congress passed the RSIA following the tragic collision of a commuter rail train and a freight train in Southern California that killed 25 people and left 138 injured. Based on the facts revealed in the National Transportation Safety Board's (NTSB) initial accident investigation, if positive train control had been installed on the tracks that are shared by commuter and freight rail trains, the accident could have been prevented. RSIA requires that positive train control be implemented on main lines where intercity passenger rail and commuter rail trains operate and over which poison- or toxic-by-inhalation hazardous materials are transported.

More commuters are turning to commuter rail today than ever before. In these tough economic times, with many commuter rail agencies facing budget cuts, funding for the railroad safety technology grants is vital to ensure that important safety measures continue to be implemented.

We cannot afford to delay the implementation of positive train control and other life saving safety measures on our Nation's busiest commuter-freight rail corridors. We respectfully request you fully fund the railroad safety technology grants for FY10, at a minimum, at the authorized amount. Thank you for your consideration of this important request.

Sincerely,

BARBARA BOXER,
United States Senator.

JOHN D. ROCKEFELLER IV,
United States Senator.

Senator UDALL. Governor Rendell, we appreciate your enthusiasm for capital budgets and also for high-speed rail. I can see you're obviously a very knowledgeable supporter of these.

I wish, in a way, we could get the same kind of enthusiasm in the West. One of my questions here was, you know, why no high-speed rail corridor in the Southwest? We have good-sized population centers in El Paso, Albuquerque, and Denver. As I look at the map, here, it looks like that would make sense. And so I'm wondering—we've authorized 11 high-speed rail corridors, yet the Department of Transportation has only designated ten. I hope you're reserving that last one for the Southwest. But, could you—
 [Laughter.]

Senator UDALL.—can you tell me a little bit of the thinking on the 11th, and where you are, what your thoughts are on an El Paso-Albuquerque-Denver corridor?

Mr. SZABO. I'm assuming that's to me.

Senator UDALL. Yes. Yes, it is, Mr. Szabo.

Mr. SZABO. Frankly, there's no position to announce, at this time, relative to any 11th high-speed rail corridor, but the important news is, is that it's not necessary in order to be an applicant under the grant guidance that we've issued.

I think most of this gets addressed, again, as we start taking a look at a national rail plan. Quite frankly, it's possible that there's the need for more than 11. We need to take a look at, where are those markets, and where there is good potential? What is the interest from those States? And, historically, there has not been a strong interest from the Southwest, but it sounds like the level of enthusiasm, quite frankly, nationwide, is changing considerably.

So, I think the issues of whether there's an 11th corridor, a 12th corridor, a 13th, whatever, will get fleshed out as we put together a national rail plan.

Governor RENDELL. Senator, could I take a shot at that?

Senator UDALL. Yes, please, Governor Rendell.

Governor RENDELL. I think the way this is going to happen, is to do it. I think that's what Mr. Skancke said. And it's up to Congress and the President to find the funding to do this in scale. And the States and local governments should chip in.

But, I think it comes incrementally. So, for example, if I could—and I've thought and thought, and I've had Wall Street people in to try to see how I could finance high-speed rail from Philadelphia to Pittsburgh, 200-mile-an-hour rail. Because if we built that, there's no doubt in my mind that the Acela would then be 200 miles-an-hour, and then from Pittsburgh into Detroit and Chicago, it would come.

So, the Texas T-Bone may be your best shot. If they can build the Texas T-Bone, and prove that it works, then how tough is it to take it—I don't know if the El Paso's on—

Mr. ECKELS. El Paso's not, but, Senator, the—El Paso is one of our strongest supporters in Texas in high-speed rail, not that they expect to see the 900 miles from Houston to El Paso built as a high-speed line; it's longer that we think works on these kinds of systems. But, it's the line from El Paso to Albuquerque to Denver, that you talked about, and they see that as a real possibility. And they see the proof in the system on the T-Bone, the Houston-Dallas, to be the next step that would then provide the capacity to move forward and build the El Paso route to Albuquerque and on to other points in the West.

Senator UDALL. Yes. Well, the—one of the things that's been fascinating in New Mexico—Governor Richardson stepped up and did the commuter rail, and there were a lot of doubts. An earlier Governor had talked about doing it, and it was ridiculed by the press, but he stepped up and did it, and on time, on schedule. And it has been going about 9 months, now. It has passed the two-millionth passenger, and in a very short period of time. And one of you, I think it was Mr. Skancke, mentioned reliable—you used the term "reliable ridership," and "predictions." I don't think anybody would have predicted, in New Mexico.

Now, granted, this is the same period where we hit the \$4 gasoline. And we're a terribly rural State, and people are known to travel 120, 150 miles a day to work, just to commute. But, it sounds a little bit like, Governor Rendell, you know, "You build it

and the people are going to come.” I think, looking at our energy future—I don’t know if any of you have any comments on that, but—it may be very hard to predict what reliable ridership is, right now.

Please, Governor Rendell.

Governor RENDELL. If OMB, CBO, and the GAO were predicting the success of Columbus’s venture, if they were advising Queen Isabella, we’d all be speaking Italian.

[Laughter.]

Governor RENDELL. I guarantee you. You’ve got it—you hit it right on the head, Senator. Some of this, we’ve got to do because, (a) we know it works in other parts of the world, and some of this we’ve got to do on faith.

When I invested the \$74 million of Commonwealth money—that’s not a lot of money down here; as Vice President Mondale once said, we spend that sum of money before breakfast in Washington—but for the Commonwealth that’s still a nice hunk of change. I wasn’t sure—there wasn’t any study that said we were going to jump up ridership that much, but I just—I knew we had to try. This was our best shot—if you look at the topography of Pennsylvania—this was our best shot to prove that there was a market for high-speed rail. And it worked. And it worked.

So, sometimes you just have to—as Mr. Skancke said, you just have to do it.

Mr. ECKELS. Senator, in the Texas/New Mexico connection there, it’s not just about the train system. We’ve spent a lot of time up here talking about moving passengers, but it’s also about the transit-oriented development and the induced demand and the additional economic activity that comes in that megopolis that we refer to in these urban areas, that would grow as a result of that infrastructure being in place, and that is one of those things that’s hard to measure until it’s in place.

Senator UDALL. Mr. Skancke, did you want to talk about—

Mr. SKANCKE. Thank you, Senator.

Senator UDALL.—reliable ridership issue, or comment on this?

Mr. SKANCKE. I think we have studied ridership in this country for hundreds of millions of dollars. I didn’t say years—hundreds of millions of dollars. And as I’ve said, it—we have to stop studying. We know, on all of the Amtrak corridors throughout the country, that there is a need and a demand. And as fuel prices go up, ridership goes up. As congestion goes up, ridership goes up. We don’t have to guess.

The problem that we have is we’re afraid to do it, because it may fail. What we need to do is not set up our high-speed rail and transit systems to fail. Let’s set them up to succeed. Create systems that work. Not pieces. So, as we’ve all said, instead of doing 100-mile segments, let’s try a 500-mile segment. Let’s actually—I’ll be a little partisan for a second—let’s build a line from Los Angeles to Las Vegas. Let’s build a line from Phoenix to Las Vegas. Let’s go from Albuquerque to Denver. Let’s try it. What do we have to lose? Nothing. If we fail, then we fail. But we don’t even know what failure is yet, because we haven’t gotten there.

Mr. BOARDMAN. Senator Udall, Joe Boardman from Amtrak.

As the good Governor was saying to me, "Who was that guy there that built our 110-miles-an-hour service?" I said, David Gunn, he was the—it's the only good thing he did for Amtrak.

[Laughter.]

Mr. BOARDMAN. But, that's not true, and I want to say that because David and I are friends, and I talked to him a couple of days ago, and I accused him of using the money from the turbo project in New York to get that done. But—I know he had, also, Pennsylvania money.

I think what Tom is talking about is absolutely true, with an exception. And that is, that the culture in this country is not a train-riding culture. In the Northeast Corridor, about 43 million people live within about 40 miles of where we operate Acela. Acela is a success. In 2000, we had—about 37 percent—this was before Acela started—of the air-rail market was with rail. Today, in 2008, we have just the opposite of that. We have 63 percent of the rail-air market, and that's with service that's 2 hours and 45 minutes from New York to Washington.

And on the north end, from New York to Boston, it was at about 20 percent, and is now—or 22 percent—it's now at about 49 percent in the same way.

So, we are demonstrating success. But the piece that we can't miss, and I think Administrator Szabo really pointed it out, is that we need to do both. We need to talk about having very high speed, and it needs to connect—T-Bone needs to—and I listened carefully, Judge; I didn't hear it connecting to Amtrak—and it might. But Amtrak is the only connected, intercity service, coast to coast, border to border, in the United States. And we need the incremental improvements to the 90-to-110, so that people build a culture of riding the train, so they fill up the high-speed trains that are connected in some fashion—and it might even be at an airport—but it could be somewhere else—where you connect our system. People want to be seamless. They don't want to go to the border of Pennsylvania and New York on Route 15—when we had to build that Presho connection, if you remember, Governor, to make sure that New York kept up with the leadership that was coming out of Pennsylvania to make that interstate connection. And that's the difficulty we have today with railroads; we don't always connect.

Mr. ECKELS. Well, Senator, if I may clarify with Mr. Boardman, that the—of Amtrak—Texas T-Bone does connect into the—sorry—the Texas T-Bone will connect into the Amtrak Houston-Metro multimodal facility in downtown Houston.

Senator UDALL. Great. Well, that's a good—a good way to finish.

And we very much appreciate this panel. It's very informative. And thank you very much.

And I will adjourn.

Thank you.

[Whereupon, at 4:20 p.m., the hearing was adjourned.]

A P P E N D I X

RESPONSE TO WRITTEN QUESTION SUBMITTED BY HON. JOHN D. ROCKEFELLER IV
TO HON. EDWARD G. RENDELL

Question. As the Federal Railroad Administration noted in its strategic plan, some States lack the financial resources to make capital investments or take on potential rail operational expenses. What can states do to leverage Federal dollars to invest in high-speed rail?

Answer. The FRA strategic plan that you cited mentions that “while other modes have historically benefited from dedicated Federal funding for infrastructure investment, rail has had no such Federal capital matching source,” (page 6). As such, the short answer to your question is that the Federal Government must commit substantial resources to rail on a reliable, predictable, and annual basis. The State Grant Program established by the FY 2008 Appropriations act provided only \$30 million to states, subject to a 50-percent non-Federal match, which was hardly a “capital investment program” when you consider that a single corridor anywhere in the United States has a price tag of over \$1 billion. Despite this, several states are ready and willing to start leveraging Federal dollars and are already actively developing high-speed rail initiatives. California and many of the Midwestern states are particularly well organized. These and other states are looking for meaningful partnerships with the Federal Government and understand for that to happen there must be a financial contribution to the costs of projects within their borders.

RESPONSE TO WRITTEN QUESTION SUBMITTED BY HON. FRANK R. LAUTENBERG TO
HON. EDWARD G. RENDELL

Question. Transportation options are limited in many rural areas, a problem compounded when Amtrak was forced to cut back services because of underfunding. How can intercity passenger rail be better utilized to connect rural America?

Answer. Unfortunately, developing an intercity passenger rail network is not an economically viable option in all states. A key component of allowing rural areas to benefit from present and future intercity passenger rail will be intercity bus networks. These networks will not only provide intermodal connections to intercity passenger rail, but also to key commercial and recreational centers. Federal funds were made available to intercity bus for the first time with ISTEA in 1991.

RESPONSE TO WRITTEN QUESTIONS SUBMITTED BY HON. TOM UDALL TO
HON. EDWARD G. RENDELL

Question 1. The New Mexico Rail Runner, a new rail line from Belen to Santa Fe, just celebrated its 2 millionth rider since it opened a few years ago. It is a comfortable and efficient way to travel that gets people out of their cars and off our congested highways. The success of the Rail Runner has revived interest in passenger rail in my state. Yet New Mexico, like every other state, relies first and foremost on roads for transportation. Across the country, only a handful of states seem to have passenger rail initiatives as part of their long term transportation planning. How can Congress and the Department of Transportation encourage state governments to consider passenger rail options for cases when traveling by train would make more sense than driving or flying?

Answer. As I stated in my testimony, high-speed rail will compete with and relieve congestion from existing modes and enhance the Nation’s economic competitiveness. The most common modes for travel in the 100-miles and above range—highways and airports—are stretched beyond capacity in many parts of the country. With regard to relieving aviation congestion, it has been well documented that the severe congestion at New York area airports—JFK, LaGuardia and Newark—create a ripple effect of congestion at other airports across the country. If we can solve the

congestion problem at these airports by providing a high-speed rail alternative along the Northeast Corridor, for example, we could end air travel of less than 500 miles. The shuttle would no longer be able to compete and those airport slots would be freed up and air traffic reduced. This is just one example. This scenario could be replicated in many other parts of the country which are struggling with high levels of congestion both on the roadways and in the air.

Question 2. Would Federal funding to support a dedicated rail transportation coordinator in each state Department of Transportation be a cost-efficient means of improving institutional expertise and capacity building at the state level for promoting passenger rail?

Answer. The main issue facing state DOTs may not be the lack of a top-level coordinator, but the loss of several experts at all angles of rail planning, operations and management. The Federal Railroad Administration's strategic plan states that "the relatively small investment in passenger rail in recent decades and growing retirements of personnel throughout the rail sector have resulted in a shrinking pool of experts in the field, including engineers skilled in signal, track, and rolling stock design, along with experienced rail planners and managers." Efforts would be better spent effectively marketing careers in transportation and rail to young people to replace the loss of retiring professionals.

RESPONSE TO WRITTEN QUESTION SUBMITTED BY HON. KAY BAILEY HUTCHISON TO
HON. EDWARD G. RENDELL

Question. The development of high-speed rail projects is going to require coordination among many stakeholders, including Federal, state, and local governments, Amtrak, the host freight railroads, and others. What is the best way to effectively coordinate among all of these stakeholders? How do we encourage investment, from both state government and the private sector, in high-speed rail? How do you believe the Federal Government can best promote sound investment in viable high-speed rail projects?

Answer. For governmental and non-governmental entities to be able to coordinate effectively, the Federal Government must first develop a national strategic plan for high-speed rail that articulates specific performance and accountability measures, and ties those measures to funding. FRA Administrator Joe Szabo has said that such a plan will be completed by the U.S. Department of Transportation in mid-October of this year.

Even as we await such a crucial plan, Governors across the country have already taken the initiative to ensure public and stakeholder support. Governor Chet Culver, for example, kicked off a whistle-stop tour in late June to promote high-speed rail between Des Moines and Chicago. He will be meeting with Governor Pat Quinn shortly thereafter to coordinate efforts. California has also been particularly active in moving forward with its own plans for high-speed rail. States understand that in order for these plans to move forward there has to be a financial contribution to the costs of projects within their borders. They are ready to engage and await Federal leadership to begin making these plans a reality.

While the development of a national high-speed rail system will require investments from the Federal and state levels, we must also explore a role for private investment. Historically, rail projects have been heavily subsidized by governments both in the U.S. and abroad. As such, it may be more of a challenge to attract private capital to a high-speed rail system, but we can learn from the experiences of other countries.

Government will first have to cover significant upfront capital construction costs. After such upfront investment, there are a variety of ways to then engage the private sector. In the case of Japan, the government sold four high-speed rail lines to private companies in 1991, and subsequent lines were built by the government using the revenues derived from this sale. In addition, the sale freed the national government from having to provide operating subsidies.

Overall, a sound Federal investment is one that focuses on service at 150 mph and above, since this is the type of service that is truly able to compete with and relieve congestion from existing modes.

RESPONSE TO WRITTEN QUESTION SUBMITTED BY HON. JOHN THUNE TO
HON. EDWARD G. RENDELL

Question. What role do you believe high-speed rail can play in meeting this country's future transportation needs? What do you believe the states' role is in advancing high-speed rail?

Answer. High-speed rail will compete with and relieve congestion from existing modes and enhance the Nation's economic competitiveness. The most common modes for travel in the 100-mile and above range, highways and airports, are stretched beyond capacity in many parts of the country. Consider that 2007 represented the second worst year on record for flight delays and cancellations. In addition, Americans lose a total of 4.2 billion hours in traffic congestion, wasting 2.9 billion gallons of fuel and \$78.2 billion each year. This results in lost productivity, less time with family and friends and negatively impacts our quality of life.

With regard to relieving aviation congestion, it has been well documented that the severe congestion at New York area airports—JFK, LaGuardia and Newark—create a ripple effect of congestion at other airports across the country. If we can solve the congestion problem at these airports by providing a high-speed rail alternative along the Northeast Corridor, for example, we could end air travel of less than 500 miles. The shuttle would no longer be able to compete and those airport slots would be freed up and air traffic reduced. This is just one example. This scenario could be replicated in many other parts of the country which are struggling with high levels of congestion both on the roadways and in the air.

As for the states' role in advancing high-speed rail, many have already begun to do so. California and many of the Midwestern states are particularly well organized. These and other states are looking for meaningful partnerships with the Federal Government as well as with the railroads to begin to move forward with the development of the designated high-speed rail corridors. States understand that in order for these plans to move forward there has to be a financial contribution to the costs of projects within their borders.

RESPONSE TO WRITTEN QUESTION SUBMITTED BY HON. JOHN D. ROCKEFELLER IV
TO HON. JOSEPH C. SZABO

Question. How can you encourage equipment manufacturers to produce more energy efficient locomotives to help further meet the goals included in the Federal Surface Transportation Policy and Planning Act of 2009? Through the distribution of the \$8 billion provided in the American Recovery and Reinvestment Act, how can you encourage the states to invest in expansion passenger rail service to help meet these goals?

Answer. Section 305 of the Passenger Rail Investment and Improvement Act of 2008 (PRIIA) called for Amtrak to establish a committee to design, develop specifications for, and procure a standardized next-generation rail corridor equipment pool. This Next Generation Corridor Equipment Pool Committee will be comprised of representatives from Amtrak, the Federal Railroad Administration, host freight railroad companies, passenger railroad equipment manufacturers, interested States, and, as appropriate, other passenger railroad operators. The equipment committee will need to take into account the energy efficiency and environmental quality of locomotives and all rail equipment developed.

Rail is already among the cleanest and most energy-efficient of the passenger transportation modes. Expansion of rail service, combined with efficiency improvements and consumption reductions in other modes, will help to contribute to the goals of the Federal Surface Transportation Policy and Planning Act of 2009, such as reducing national surface transportation-generated carbon dioxide levels by 40 percent by 2030. According to a study by the U.S. Department of Energy, implementation of pending plans for the ten federally-designated high-speed rail corridors could result in an annual reduction of 6 billion pounds of carbon dioxide. The overwhelming response in pre-applications to the HSIPR Program—278 pre-applications totaling over \$103 billion in projects—indicate that states recognize the opportunity to transform the country's transportation system and foster energy independence and efficiency through the expansion of passenger rail service.

RESPONSE TO WRITTEN QUESTIONS SUBMITTED BY HON. FRANK R. LAUTENBERG TO
HON. JOSEPH C. SZABO

Question 1. The Passenger Rail Investment and Improvement Act of 2008 (P.L. 110-432) requires Amtrak and the Federal Railroad Administration to develop standards for measuring the performance and service quality of Amtrak's operations. These were due to be completed in April, but have not been completed yet. When can we expect that they will be completed?

Answer. The Federal Railroad Administration (FRA) issued a "provisional staff draft" of the proposed metrics and standards (in conjunction with Amtrak) on March 13, 2009. The draft made clear that it was "subject to subsequent review and revision by appointed policy-makers in the U.S. Department of Transportation." We received complex and substantive comments from stakeholders regarding the provisional staff draft. Subsequent to the enactment of the mandate for metrics and standards (in the Passenger Rail Investment and Improvement Act of 2008), the Congress passed the Recovery Act legislation requiring us to complete a strategic plan and detailed guidance for the States for creating an \$8 billion grant program for passenger rail investment. In view of all these developments, we have chosen to defer publication of final metrics and standards until we can give appropriate review and consideration to the docket comments, and provide an opportunity for our new political leadership to assess the proposal and its policy implications, particularly in light of the altered landscape created by the Recovery Act and the new Federal approach to intercity passenger rail. To date and to our knowledge, no party has petitioned the STB for an arbitrator under section 207(d) of PRIIA.

Question 2. Transportation options are limited in many rural areas, a problem compounded when Amtrak was forced to cut back services because of underfunding. How can intercity passenger rail be better utilized to connect rural America?

Answer. Although high-speed rail is often viewed in the context of connecting major population centers, intercity passenger rail can also provide benefits in connecting rural communities across the country. The development of such services is dependent upon state and Amtrak plans for intercity passenger rail, which will be driven by a multitude of financial and policy considerations unique to each potential service.

The application evaluation criteria for FRA's High-Speed Intercity Passenger Rail (HSIPR) Program will take into consideration a proposed project's or service's accessibility and interconnectivity. Additionally, there are a series of selection criteria that the FRA Administrator will apply to ensure a balanced national program, including an appropriate distribution of project's benefiting large and small population centers.

RESPONSE TO WRITTEN QUESTIONS SUBMITTED BY HON. TOM UDALL TO
HON. JOSEPH C. SZABO

Question 1. Congress authorized up to 11 high-speed rail corridors. Yet the Department of Transportation has designated only 10 such corridors to date. The Southwest is notably left off the map in the Obama Administration's "Vision for High-Speed Rail" document. Why is there no 11th high-speed rail corridor?

Answer. Of the 10 designated high-speed rail corridors, three were specifically named by Congress in law. Seven corridors were selected by the Secretary of Transportation through a competitive process, which in current law involves an evaluation of such factors as projected ridership, public benefits, and anticipated partnership participation of States, localities, and the freight railroads. The Secretary of Transportation will determine whether to designate the one remaining authorized slot for a stand-alone high-speed rail corridor.

Question 1a. Why does the Southwest region not have a high-speed rail corridor?

Answer. The Southwestern states did not apply for designation during the merit-based competition that occurred in the year 2000 and that was announced in the *Federal Register*.

Question 2. The stimulus package provided a significant "down payment" investment in high-speed rail yet relatively little Federal grant money is available for states to conduct feasibility studies or other planning for future high-speed rail initiatives. How will the Federal Railroad Administration help states seeking Federal assistance for passenger rail planning?

Answer. During May and June, the Federal Railroad Administration (FRA) held a series of outreach meetings with states and other rail stakeholders on the development of the High-Speed Intercity Passenger Rail (HSIPR) Program guidance. The issue of the importance of planning to the long-term success of the HSIPR Program,

along with the limited funding available for such activities under existing FY09/FY08 appropriations, was a topic raised during each session.

The President's FY10 Budget Request proposes to make funding available for eligible rail planning purposes, including design, environmental studies and incorporating corridor plans into State rail plans. These activities are necessary in order to advance corridor plans to the stage where their proposed investments can be objectively evaluated based on merit.

While an increase in dedicated Federal rail planning funds will ultimately depend on appropriations from Congress, FRA's implementation schedule for the HSIPR Program is intended to help facilitate planning to the maximum extent possible. FRA envisions holding two rounds of application solicitations under the HSIPR Program. The first round will take place in August and October. Although the Recovery Act does not provide funds for planning, FRA created a funding track under the HSIPR Program to incorporate the \$9.54 million made available for planning under FY09 and remaining FY08 annual appropriations. FRA anticipates awarding these planning funds during the first round of applications.

With any Recovery Act funding remaining after the first round of solicitations, FRA plans to hold a second round of application solicitations in 2010. The timeframe between the first and second rounds will allow applicants to utilize the FY09/FY08 planning funds awarded during the first round of solicitations, as well as their own resources, to prepare projects for consideration during the second round of solicitations.

Question 3. The New Mexico Rail Runner, a new rail line from Belen to Santa Fe, just celebrated its 2 millionth rider since it opened a few years ago. It is a comfortable and efficient way to travel that gets people out of their cars and off our congested highways. The success of the Rail Runner has revived interest in passenger rail in my state. Yet New Mexico, like every other state, relies first and foremost on roads for transportation. Across the country, only a handful of states seem to have passenger rail initiatives as part of their long-term transportation planning. How can Congress and the Department of Transportation encourage state governments to consider passenger rail options for cases when traveling by train would make more sense than driving or flying?

Answer. Judging from the overwhelming pre-application response to the HSIPR Program, states are very seriously considering intercity passenger rail as an alternative and addition to existing transportation modes. FRA received 278 pre-applications for the HSIPR Program, totaling more than \$103 billion in projects, from 40 states and the District of Columbia. States, and more importantly travelers, will select rail as their transportation mode of choice when rail is demonstrated to be competitive in terms of both cost and trip time with transportation alternatives.

Question 3a. Would Federal funding to support a dedicated rail transportation coordinator in each state Department of Transportation be a cost-efficient means of improving institutional expertise and capacity building at the state level for promoting passenger rail?

Answer. Building institutional expertise and capacity at the state level, and across all sectors of the rail industry, will be critical to successfully managing the HSIPR Program. A dedicated rail transportation coordinator in each state could be one approach to developing these capabilities. While the country faces the challenge a dwindling pool of rail experts due to previous funding constraints and retirements in the rail community, the President's and Congress' renewed investment will eventually bring expertise back into the industry.

Question 4. The French TGV and Japanese bullet trains travel at over 185 miles per hour, which is much faster than the current "high-speed" rail corridors in the U.S. would allow. Are there plans to upgrade U.S. train tracks to allow for greater speeds?

Answer. Although high-speed rail is defined in the Passenger Rail Investment and Improvement Act of 2008 as "intercity passenger rail service that is reasonably expected to reach speeds of at least 110 mph," FRA anticipates high-speed rail service to operate at greater speeds depending on track and rights-of-way conditions. In instances of completely grade-separated, dedicated rights-of-way, top speeds of greater than 150 mph can be expected. The HSIPR Program will fund a mixture of new track construction and track rehabilitation projects that will allow for high-speed rail service. Ultimately, the nature of these service upgrades will depend on the projects states submit for consideration under the HSIPR Program.

Question 4a. Would this additional speed improve the performance and ridership levels for Amtrak service in the northeast corridor?

Answer. While increased top speeds can play a part in improving on-time performance, modest capacity enhancements and congestion reduction measures can often

have significant impacts on performance improvement. Amtrak is currently undertaking projects funded by their Recovery Act program that will result in performance improvements along the Northeast Corridor. Ultimately, the nature of future service upgrades will depend on the projects states and Amtrak submit for consideration under the HSIPR Program and annual Amtrak funding.

RESPONSE TO WRITTEN QUESTIONS SUBMITTED BY HON. MARK WARNER TO
HON. JOSEPH C. SZABO

Question 1. With the infusion of new money dedicated to high-speed rail, it must be noted that many of these high-speed rail opportunities will be using rights-of-way on rail that is actually owned by the four big freight railroads. In fact, one potential impediment to rapid deployment of ARRA high-speed rail funds is a lack of coordination with the railroads. In order for these high-speed rail corridors to work, the railroads must be consulted in order to coordinate infrastructure improvements and freight and passenger rail schedules. What input have you had thus far from freight railroads, and how will their input affect plans on developing high-speed rail infrastructure?

Answer. We anticipate that many intercity and high-speed rail development opportunities will be implemented using rights-of-way owned by the private freight railroads. The Federal Railroad Administration (FRA) recognized this reality in developing the high-speed rail program and the freight railroads were an important group that the agency reached out to in connection with outreach sessions held in May and June of this year in which over 1,100 stakeholders participated in seven sessions around the country. As structured through the authorizing legislation, FRA's High-Speed Intercity Passenger Rail (HSIPR) Program is based upon rail passenger development proposals submitted by State governments or public agencies established by one or more states with responsibility for intercity or high-speed rail services. From the beginning, the agency has encouraged eligible applicants to engage key stakeholders, such as infrastructure owners, early in the development process. FRA's Interim Guidance implementing the HSIPR Program requires each applicant to demonstrate that it has reached, at a minimum, agreements in principle with key project partners, including but not limited to infrastructure-owning railroads and the railroad that operates or will operate the benefiting high-speed rail/intercity passenger rail service as to the scope of the proposed project and the realization of the operating benefits it is intended to generate. A completed agreement with the owning freight railroad approved by the Federal Railroad Administration is required before the agency will provide funds for a project.

Question 2. As you assess the various proposals, I hope that you are placing emphasis on the multi-modal opportunities made available by each project. These high-speed rail projects should serve not only as transport from city to city, but should serve as connections between different modes of transportation as well. How are you incorporating a multi-modal approach into your evaluation process?

Answer. A multi-modal approach is a key component of our project evaluation process. As described in FRA's program implementing guidance published in the *Federal Register* on June 23, 2009, each proposed high-speed or intercity passenger rail project will be assessed based on its demonstration of the project's potential to meet the purpose and need and to achieve transportation benefits in a cost-effective manner, as set forth through the President's strategic transportation goals and the objectives of the Passenger Rail Investment and Improvement Act of 2008. Factors to be considered in assigning a rating for each project include among other things: (1) the contribution the proposed project would make to generating cross-modal benefits, including anticipated favorable impacts on air, or highway traffic congestion, capacity, or safety, and the cost avoidance or deferral of planned investments in aviation and highway systems, (2) encouragement of intermodal integration through provision of direct, efficient transfers among intercity transportation and local transit networks at train stations, including connections at airports, bus terminals, subway stations, ferry ports, and other modes of transportation, and (3) improved freight or commuter rail operations, in relation to proportional cost-sharing by those other benefiting rail users.

Question 3. As you and your colleagues make the determination of which high-speed rail projects to fund with ARRA funds, I strongly urge that you keep in mind performance metrics for the various projects. Do you plan on performing cost-benefit and mobility analyses for the proposals? Do you plan on putting in place certain performance metrics as the funds are allocated to ensure that Federal funds are spent in a cost-effective manner where efficient on-time and on-budget projects are rewarded?

Answer. The agency's implementing guidance for the High-Speed Intercity Passenger Rail (HSIPR) Program notes that one of the key assessment criteria for proposed projects is the project's ability to produce a public return on investment, taking into consideration the forecasted benefits, the overall cost of the proposed project and the amount of Federal funding requested. Applicants are required to provide information quantifying the anticipated benefits of the project which FRA will use to evaluate applications in a manner consistent with Executive Order 12893, Principles of Federal Infrastructure Investment which will include a systematic analysis of expected benefits and costs, including both quantitative and qualitative measures. Applicants are also required to submit a Project Management Plan documenting assumptions and decisions regarding the communication, management processes, execution and overall project control along with a Financial Plan documenting the recent and forecasted financial condition of the applicant and other key partners that will provide capital or operating funding for project development and/or implementation. Collectively the information required through the application process will enable the agency to select projects that are cost effective and can be completed on time and on budget. These expectations will be reflected in the agency's grant agreements with selected applicants.

RESPONSE TO WRITTEN QUESTION SUBMITTED BY HON. JOHN D. ROCKEFELLER IV
TO HON. JOSEPH H. BOARDMAN

Question. Does Amtrak have a plan to reduce Amtrak's energy consumption and emissions?

Answer. Amtrak established a Fuel and Energy Management committee whose goal is to identify efficiencies in the way fuel and utilities are used by Amtrak that will positively impact Amtrak's overall use of these commodities. Members of this committee proposed a 5-year energy reduction program at Amtrak's June 2009 Board of Directors meeting. The proposed plan clearly states Amtrak's commitment to reducing energy usage at all locations across the country and directly aligns with Amtrak's corporate goal of becoming a Safer, Greener and Healthier Company. Following is a summary of the energy conservation and emissions reduction efforts currently underway at Amtrak:

Facilities/Stations

In order to identify specific strategies to reduce energy consumption, Amtrak's Utilities Management staff has directed the completion of energy audits at a number of Amtrak's largest maintenance facilities and stations. These audits have identified significant opportunities to reduce energy and water usage and consequently, overall utilities operating expense. A number of these strategies require the use of capital funding to make improvements in lighting, water distribution systems and building control systems within Amtrak's major facilities and stations.

The energy reduction goal and the plan to achieve that goal will be presented to the Board during the September meeting and is expected to be approved as a part of Amtrak's 5 year plan which is scheduled for release in October 2009.

Diesel and Electric Locomotives

Amtrak Transportation implemented improved train handling procedures in order to reduce energy consumption on our diesel and electric locomotive powered trains. In order to ensure compliance, Amtrak supervisors educate, monitor and counsel locomotive engineers regarding their performance related to the improved procedures. The procedures were put into place while awaiting production and delivery of our locomotive simulators.

Our energy reduction plan involves the use of simulators and new train handling software to teach locomotive engineers the most optimum method to operate a specific train on a specific territory. Using the simulators, our locomotive engineers are given prompts (cues) regarding speed and braking to accomplish the most economical way to operate our trains. These prompts are territory (grade, curvature, speed) and train (number of cars/locomotives) dependent.

We are also studying the feasibility of equipping our locomotive fleet with onboard software which will update to the most optimum train handling methods as conditions change. This software would function in the same way as the simulators except it will operate in "real-time". Also, as Positive Train Control (PTC) systems are implemented, we are investigating how to achieve an even greater savings by hav-

ing the onboard equipment “see what’s ahead” by interfacing with the train dispatching system to predict the most efficient operating practice.

The goals below reflect our expectations using the locomotive simulators to reduce energy consumption during Fiscal Years 2010 and 2011:

- For Fiscal Year 2010, we expect a 3.2 percent reduction in total diesel fuel consumption from March to September (averaged over entire fiscal 2010 = 1.9 percent reduction). Actual savings will not begin until March 2010, due to simulator deployment and locomotive engineer training during the first half of fiscal 2010.
- In fiscal 2011, our goal is a 3.8 percent cumulative reduction in total diesel fuel consumption.
- Energy savings as a result of on-board software and PTC implementation are difficult to estimate at this time because the systems are still in the development and test phase. As soon as we determine how these systems interact with our equipment, we will develop the goals for energy conservation.
- As methods are deployed to monitor electric energy consumption on electric locomotive powered trains, we will develop goals for energy conservation on these types of trains.

Emissions

Amtrak has committed to reduce its greenhouse gas emissions from diesel locomotive operations by 6 percent between 2003 and 2010 from a baseline calculated from the average annual emissions from 1998–2001. Amtrak joined the Chicago Climate Exchange in 2003 as a charter member and agreed to this reduction—the largest voluntary commitment in the United States. We have met all required interim reduction targets through 2008.

CCX provides a voluntary exchange for trading greenhouse gas credits (mainly carbon dioxide) using a market-based system. Greenhouse gas credits available for trading by Amtrak are based on diesel fuel use in the 1998–2001 baseline period versus fuel use calculated in each individual year from 2003 to 2010. Fuel use is converted to tons of carbon dioxide released in the combustion of diesel fuel. Amtrak’s 1998–2001 baseline is approximately 800,000 metric tons of carbon dioxide.

Amtrak was successful in reducing its diesel fuel consumption below the target level for 2008. Total carbon dioxide emissions from diesel operations, verified by CCX, were 679,000 tons. The company was able to sell some greenhouse gas credits in 2008.

Diesel emissions were reduced by using:

- Anti-idling practices.
- Automatic Start/Stop installation—when ambient temperatures are above 40 degrees F.—locomotives shut down.
- Aerodynamic improvements of rolling stock—reducing drag.
- Consist/Locomotive management—reduces number of locomotives in each consist (trainset).
- Locomotive upgrades and improved maintenance.
- Locomotive engineer training—fuel saving operational training.

For electric locomotive operations, Amtrak has begun implementing regenerative braking. A study has demonstrated that Acela trains return up to 8 percent of the electric power used back to the catenary grid when braking. Regenerative braking is being implemented on Amtrak electric locomotives on the Northeast Corridor.

Amtrak has also received grants from the Carl Moyer program in California (from the Bay Area Air Quality Management District (AQMD) and the South Coast AQMD) for GenSet Switcher locomotives for Oakland and Los Angeles. The U.S. EPA and State of Illinois have also awarded a grant for a GenSet Switcher for Chicago. When operating in 2010, these three GenSet Switchers (of the 53 in the Amtrak fleet) will reduce their diesel use by 60 percent and emissions by 70 percent.

Amtrak also uses solar power for over 50 lubricators for track curves (provides a grease to reduce friction) along the Northeast Corridor and a solar and wind turbine for signal power in the Chicago Rail Yard. A biodiesel fuel trial is planned for the Heartland Flyer (Fort Worth—Oklahoma City) sponsored by the FRA and State of Oklahoma DOT.

Additional Amtrak GHG initiatives to help reduce emissions:

Carbonfund

Amtrak partnered with Carbonfund in 2007 to offer passengers the opportunity to purchase carbon offsets for their travel on Amtrak.

Carbonfund is a leading carbon reduction and offset non-profit organization that educates the public about climate issues and makes it easy and affordable for individuals businesses and organizations to reduce their climate impact. Through July 2009, Amtrak passengers have purchased 8,000,000 miles of off-sets.

Climate Registry

Amtrak recently joined The Climate Registry, a non-profit organization, founded to set consistent and transparent standards for businesses and governments to calculate, verify, and publicly report their greenhouse gas emissions. Over 40 states are founders of the Climate Registry. As a member, Amtrak committed to comprehensive reporting standards for recording and managing greenhouse gas emissions throughout its system including those from diesel and electric locomotives, passenger rail cars, maintenance equipment, stations, offices and other facilities. Amtrak intends to use the data generated by this initiative to assess the effectiveness of its various environmental policies, determine what changes might be needed, compare itself with industry peers, and identify new opportunities to reduce emissions. Amtrak is the first railroad to join this registry.

Climate Counts

Amtrak is participating in Climate Counts, a non-profit organization which provides an independent and verifiable assessment of a company's commitment to reduce its impact on the environment and climate change. The group uses 22 specific criteria to produce a scorecard to rate how companies have measured their carbon footprint, reduced their impact on climate change, supported effective climate legislation and publicly disclosed their climate actions in a clear and comprehensive manner. Amtrak intends to use the scorecard to better understand its overall impact on climate change. Amtrak is also the first railroad to join this group.

RESPONSE TO WRITTEN QUESTIONS SUBMITTED BY HON. FRANK R. LAUTENBERG TO HON. JOSEPH H. BOARDMAN

Question 1. How will the \$1.3 billion for Amtrak in the American Recovery and Reinvestment Act help to jumpstart improvement to the Northeast Corridor (NEC), particularly in meeting the deadline of bringing the Corridor to a state of good repair by 2018?

Answer. Stimulus Funding has provided the catalyst to progress many projects that are critical to return the Northeast Corridor infrastructure to a state of good repair. Currently, Engineering has approximately \$650 million in the stimulus program in 84 projects on the Northeast Corridor directly related to state of good repair. However, combined with our estimated general capital programs through FY11, NEC Infrastructure is still below the average yearly funding level, of nearly \$700M, required to bring the Northeast Corridor infrastructure to a state of good repair by 2018.¹ On the Mechanical side, the stimulus funds will allow Amtrak to convert, rehabilitate or overhaul 55 units of Amfleet 1 equipment, the workhorse passenger car of the NEC fleet, ensuring this equipment will be restored to a state of good repair (or remain in that condition). The additional equipment will allow Amtrak to add incremental capacity as needed and should contribute to improved reliability of service in the NEC.

Major Construction Programs (\$120M)

- Wilmington, DE Station Restoration (\$20M)
- Emergency Backup Power for NY Tunnels (\$20M)
- Penn Station Chiller and Abatement Back up Power (\$30M)
- NY Fire Standpipe System (\$40M)
- NY Penn Station Fire Alarm System (\$10M)

¹ For additional discussion of Northeast Corridor state of good repair requirements, see Northeast Corridor State of Good Repair Spend Plan, Prepared by Amtrak under Section 211 of the Passenger Rail Investment and Improvement Act of 2008, April 15, 2009 (attached). Please note from the report that the majority of the Northeast Corridor infrastructure will be in a state of good repair by 2018 if funded at the \$700M annual level. Under the current plan, as in the report, major bridges and tunnels will not be in a state of good repair until the end of 2022 due to limited track capacity, combined with very long lead times for design and construction.

Track Programs (\$22M)*Highlights include:*

Right of Way Improvements on the Northeast Corridor Washington to Boston. These programs include excavation of fouled drainage keyways and culvert aprons, tree cutting away from catenary and power transmission lines, repairs to collapsed retaining walls and drain pipes, and installation of safety guide rails.

Structures Programs (\$260M)*Highlights include:*

Niantic River Bridge Replacement (\$100M)
 Other Undergrade Bridges (\$65M) including Thames River Bridge Painting, River Road Bridge in Madison, CT; Bridge replacement, East and West Harbor Bridges in Stonington, CT; Miamicock, Bridge in CT; Pelham Bay Bridge, Union and Wood Street Bridges in Middletown, PA; Orange Street Bridge in Wilmington, DE.
 30th Street Station Philadelphia Façade Restoration (\$20M)
 Other station improvements at 17 locations (\$30M)
 Facility Upgrades totaling \$45M at over 20 locations on the NEC. These programs include employee fall protection at 7 NEC locations (\$2M), Southhampton Street Yard Drop Table (\$18M), Platform Improvements Sunnyside Yard, NY (\$8M), employee welfare facilities, roofs, platform lighting and utility upgrades.

Electric Traction Programs (\$167M)*Highlights include:*

Lamokin Frequency Converter replacement (\$60M)
 A&S Branch Transmission Line Replacement (\$30M)
 Substation Transformers and Remote Terminal Unit Replacement (\$25M)
 Ivy City Substation and Transmission Line Construction (\$20M)
 Metuchen Frequency Converter Cable Ductbank Install (\$15M)
 Jericho Park Converter Station Refurbishment (\$6.5M)
 60 HZ Backup Power (\$10M)

Communication and Signal (C&S) Programs (\$80M)*Highlights include:*

Installation of Redundant Communication Cable (\$10M)
 Install Redundant Cable to Sub-Stations (3M)
 60HZ Backup Cable Into Each C&S Location New England Division (\$3.5M)
 Install Redundant Radiating Cable in NY Tunnels and Baltimore Tunnels (\$8.7M)
 Positive Train Control NEC (\$50M)
 Fall Protection for 220 Signal Bridges (\$5M)

Amfleet Overhauls, Conversions and Wreck Repairs (\$58.5M)*Highlights include:*

20 Amfleet I Food Service Cars converted to coach cars
 7 Amfleet I Coaches rehabilitated from wreck status and overhauled
 28 Amfleet Coach and Food Service Car overhauls
 5 Amfleet II Cars used primarily in long distance service will be brought back from wreck status and overhauled

Question 2. The Passenger Rail Investment and Improvement Action of 2008 (P.L. 110–432) expanded the authority of the Surface Transportation Board to investigate and remedy passenger rail on-time performance issues. How has the enactment of this law affected Amtrak's on-time performance? What result will an improvement in on-time performance have on Amtrak's bottom line?

Answer.

Endpoint On Time Performance

	Since PRIIA 16Oct08–31Jul09	FY08	Point Improvement Since PRIIA
<i>System</i>	80.3%	71.2%	9.1
<i>NEC</i>	83.9%	81.0%	2.9
<i>Short Distance (Off-NEC)</i>	79.3%	68.6%	10.7
<i>Long Distance (Off-NEC)</i>	74.6%	54.2%	20.4

Since enactment of PRIIA, OTP has improved by 20.4 percentage points over FY 2008 on long distance trains, and by 10.7 percentage points on short distance trains

off the NEC. Amtrak analysis indicates that the largest driver of this improvement is management actions by host railroads following enactment of PRIIA. This also builds on improvements made in FY 2007–2008 in anticipation of PRIIA; total OTP improvement to long distance trains since FY 2006 is 44.6 percentage points (from 30.0 percent to 74.6 percent). Amtrak anticipates that the most substantial and lasting impact to OTP will come from adoption of metrics and standards jointly by FRA and Amtrak, as required by PRIIA Section 207. Once the metrics and standards are published, additional improvement is expected as hosts and Amtrak bring operations into line with the new standards.

A March 2008 study by the DOT Inspector General predicted an annual revenue gain of \$111 million (relative to FY 2006) due to sustained OTP of 85 percent. The full revenue benefit identified by the DOT IG is based on a stable economy, and can only be reasonably attained after a record of sustained high performance. Nonetheless, Amtrak's long distance routes, which have experienced the largest OTP improvement, grew revenue by \$10 million through June 2009 despite the weak economy. This suggests that, in general, revenue is benefiting from improved OTP as predicted by the DOT IG's report.

Question 3. The Passenger Rail Investment and Improvement Act of 2008 (P.L. 110–432) requires Amtrak and the Federal Railroad Administration to develop standards for measuring the performance and service quality of Amtrak's operations. These were due to be completed in April, but have not been completed yet. When can we expect that they will be completed?

Answer. Amtrak and the Federal Railroad Administration jointly prepared an Exposure Draft of proposed Section 207 Metrics and Standards that was posted for stakeholder comments in the Federal Register on March 13, 2009. On April 13, Amtrak forwarded to FRA a revised proposal that reflected the stakeholder input that had been received. However, in light of the FRA's responsibilities for implementing the provisions of the American Recovery and Reinvestment Act, Amtrak has not yet received a response from FRA. Based upon informal conversations with the FRA, Amtrak expects that the PRIIA Section 207 Metrics and Standards work will be completed by the end of August, 2009.

RESPONSE TO WRITTEN QUESTIONS SUBMITTED BY HON. TOM UDALL TO
HON. JOSEPH H. BOARDMAN

Question 1. In the Mountain West states, Amtrak's passenger lines run East-West without any North-South lines to connect passenger service in the region. For example, to reach Denver or El Paso by train from Albuquerque, one would need to make a connection in Chicago or Los Angeles. Has Amtrak considered or studied options to improve passenger service in the Mountain West, such as potentially adding a new intercity line to connect the *California Zephyr*, *Southwest Chief*, and *Sunset Limited*?

Answer. Amtrak currently offers Thruway bus services that connect the *California Zephyr*, *Southwest Chief* and *Sunset Limited* routes.

Amtrak has not studied the potential for a new North-South Amtrak route in the Mountain West states. Amtrak is currently conducting to statutorily mandated studies, which will be completed in October, of the potential for restoring Amtrak service on two East-West routes through this region: the former Pioneer route between Denver/Salt Lake City and Seattle, and the former North Coast *Hiawatha* route between Chicago and Seattle via the southern portions of North Dakota and Montana.

Amtrak believes that additional long distance routes could produce many public benefits, including enhancing connectivity within Amtrak's route network and providing an important transportation option for communities not currently served by Amtrak, particularly those in which intercity bus and airline service is limited or non-existent. However, expansion of Amtrak's route network would require significant additional Federal and/or state funding for both capital costs (for equipment, stations, and investments to upgrade tracks and increase rail line capacity) and for operating costs not covered by farebox revenues. Current Federal and state funding of Amtrak does not allow us to expand our long distance network beyond its current size or undertake numerous studies to consider additional routes.

Question 2. Amtrak performs reasonably well along the northeast corridor. Yet in the West, Amtrak service does not compete with traveling by airplane or by car. Despite the longer distances between cities in the American West, I believe that passenger rail could have a much greater role than it plays today. After all, the arrival of railroads in the 19th century gave birth to many western towns now connected only by roads. How can passenger rail be revived in the West as a viable alternative to traveling by car or by plane?

Answer. Amtrak assumes that this question pertains to the Mountain West states, since the highly successful Amtrak service on the four state-supported corridor routes in the West Coast states is very competitive with travel by airplane and car. The 6.3 million passengers on Amtrak's West Coast corridor routes last year accounted for more than 20 percent of Amtrak's nationwide ridership.

The four Amtrak long distance routes that serve the Mountain West states—the *Sunset Limited*; *Southwest Chief*; *California Zephyr*; and *Empire Builder*—play a vital role in many small and mid-sized communities that have few—if any—other intercity public transportation options. A 2002 report by the Great American Station Foundation (subsequently renamed Reconnecting America) entitled “Pulling Out All the Stops: The Real Cost of Losing Passenger Rail Service in New Mexico” concluded that residents of small and rural New Mexico communities served by Amtrak “rely on Amtrak to provide a key transportation alternative”, and that “Amtrak passenger service at each of the communities is an essential component of the regional and statewide tourism industry.” The importance of Amtrak service in the New Mexico communities along the *Southwest Chief* route has increased since publication of the report due to reductions in intercity bus service.

As the question suggests, there are challenges associated with expanding intercity passenger rail service in the Mountain West states. Distances between major cities are generally longer, and population densities lower, than in the East and along the West Coast. The states in the region have not historically provided the funding support that has enabled expansion of Amtrak services in other regions of the country. However, the Mountain West states also have characteristics that could facilitate the development of intercity passenger rail service. Their major metropolitan areas are experiencing significant increases in population. It is easier and less expensive to construct or improve a rail line along routes with low intermediate population density than in more urbanized areas of the country. The development of new commuter rail or local rail transit services in Albuquerque, Phoenix and Salt Lake City within the past few years, and Denver's ambitious plans for expanded rail transit and new commuter rail services, provide the local rail connections and facilitate the transit oriented development that have played such an important role in the development and expansion of Amtrak services in other regions of the country.

The \$8 billion in Federal funding that the American Recovery and Reinvestment Act (“ARRA”) provides for intercity/high-speed passenger rail service creates an unprecedented opportunity for states to begin or accelerate the development of intercity passenger rail services. The states of Texas, New Mexico and Colorado have announced plans to seek ARRA funding to study a potential high-speed rail corridor linking Denver, Albuquerque and El Paso.

Perhaps the most critical prerequisite to expansion of passenger rail service is the preservation of key rail lines and infrastructure required for potential future passenger rail services, which are often irreplaceable if lost. The agreement Amtrak recently entered into with the Denver Regional Transportation District regarding the reconstruction of the tracks and platforms at Denver Union Station for commuter rail service includes provisions sought by Amtrak which ensure that the project will preserve existing options for construction of a connection that would provide access to the station tracks for future passenger rail service operating between Denver and the South. Preservation of the “Raton Pass Line” from Albuquerque to Trinidad, CO, over which Amtrak's *Southwest Chief* operates, is critical both to retaining the service provided by that train and to future development of high-speed rail service between Albuquerque and Denver. The Raton Pass Line, which the state of New Mexico announced a not-yet-consummated agreement to acquire in 2005, was identified by Amtrak as one of its most “At Risk” lines in a 2004 report due to minimal freight traffic.

RESPONSE TO WRITTEN QUESTION SUBMITTED BY HON. MARK WARNER TO
HON. JOSEPH H. BOARDMAN

Question. When I was Governor of Virginia, we invested significant resources in the Washington to Richmond rail corridor. These investments bought Virginia four train slots that we are now using to extend two Northeast Corridor trains to Richmond and Lynchburg. In the past, you and your predecessor, Mr. Kummant, have both indicated that you would like to extend high-speed or electrified rail from Washington to Richmond. Is that still the case? Also, what impact would an extension to Richmond or Petersburg have on the Northeast Corridor, both in terms of congestion and financial cost?

Answer. As you have stated, the improvements that the Commonwealth of Virginia funded on the Washington-Richmond line have increased capacity on that line

and will allow for the extension of additional Northeast Regional service south of Washington. Starting October 1, one new daily round trip will run south to Alexandria and Lynchburg; and one new daily round trip will run south to Alexandria and Richmond starting in December.

I have supported the concept of electrifying the rail corridor along I-95 south of Washington to Richmond and beyond, and I continue to do so. However, the cost of petroleum has declined significantly since mid-2008 and, while it may well increase again, for now the case for electrification is less pressing than it was a year ago. Also, in the nearer term, both the Commonwealth and the track owner, CSX Transportation, favor other projects that would expand capacity on the route, and we support such capacity expansion. This summer, many states, in consultation with Amtrak and other host railroads, have been discussing, refining, and submitting applications for competitive intercity passenger rail grant funds available through the American Recovery and Reinvestment Act (ARRA). The Commonwealth's submission for a Washington to Richmond/Petersburg corridor program includes many capacity expansion projects, and foresees an increase in train frequencies and ridership south of and through Washington, primarily using existing train slots on the Northeast Corridor. Amtrak has informed the Commonwealth that we support their submission and that we will work with the Commonwealth to advance the program.

Additionally, Amtrak is deeply involved in a Northeast Corridor Master Plan process that was authorized by the Passenger Rail Investment and Improvement Act (PRIIA) and that also involves Northeast Corridor states and other stakeholders. Electrification to Richmond would streamline our train operations at Washington Union Station by eliminating the need to change locomotives there and would improve travel times and encourage increased ridership south of Washington. However, because of the emphasis being placed on capacity expansion by the Commonwealth and CSX Transportation, as outlined above, the current Northeast Corridor Master Plan does not assume electrification south of Washington and does not attempt to quantify ridership increases related to electrification. We remain open to studying electrification in a future phase of the Master Plan, provided that the Commonwealth informs us of their interest in the idea and that adequate funding is provided.

RESPONSE TO WRITTEN QUESTION SUBMITTED BY HON. JOHN D. ROCKEFELLER IV
TO SUSAN A. FLEMING

Question. What challenges must we overcome to ensure high-speed rail on new and existing intercity corridors is competitive with other transportation modes?

Although high-speed rail programs have existed prior to the Recovery Act, there has been no national plan to guide the role of high-speed rail in the U.S. transportation system. Many high-speed rail proposals that exist today are not born out of a structured Federal transportation planning process, but were initiated by varying groups of project sponsors that have included states, Amtrak, Federal agencies, and private companies. Because these proposals are developed outside the planning process, it is more difficult to attract funding and garner political and public support.

Answer. High-speed rail could have a place in the national transportation network if it is developed in corridors where trip lengths are time and price competitive with other modes of transportation, and that have dense populations, heavy travel demand and strained capacity. To be time-competitive with other modes, it is likely that high-speed rail will need to run on dedicated tracks and not share track with freight or commuter services. Keeping costs down is also important, and projects that would have an advantage are those that can use an existing right of way safely—although not necessarily sharing tracks with other rail users—and are relatively flat with relatively straight tracks. Finally, to be a viable transportation choice, service must be frequent, convenient, and safe.

Developing high-speed rail in the U.S. is possible, but it will certainly not be easy. Recent Federal actions indicate a shift in this country's commitment to high-speed rail. However, sustained Federal leadership and commitment will be needed, as well as sustained leadership and commitment from state and local governments and the private sector.

Second, a strategic vision for high-speed rail, particularly in relation to its role in the Nation's transportation system, should be developed that clearly identifies potential objectives and goals and the roles of Federal and other stakeholders. Third, and related to the strategic vision, the Department of Transportation needs to clearly identify the expected outcomes from development of high-speed rail projects and develop the performance measures to show whether these outcomes are being

achieved. Finally, reliable ridership forecasts and cost forecasts are critical factors in determining whether a high-speed rail in a particular corridor is potentially viable. FRA needs to take the lead to develop guidance and methods to ensure that these forecasts are consistent and reliable across potential corridors.

RESPONSE TO WRITTEN QUESTIONS SUBMITTED BY HON. KAY BAILEY HUTCHISON TO
SUSAN A. FLEMING

Question 1. The development of high-speed rail projects is going to require coordination among many stakeholders, including Federal, state, and local governments, Amtrak, the host freight railroads, and others. What is the best way to effectively coordinate among all of these stakeholders?

Answer. We have identified key practices that can help enhance and sustain collaboration among Federal agencies and other stakeholders.¹ These practices provide a number of actions FRA could take to shape its efforts and guide coordination among agencies, states, local governments, and other stakeholders in developing intercity passenger high-speed rail service:

- Define and articulate common outcomes.
- Establish mutually reinforcing or joint strategies.
- Identify and address needs by leveraging resources.
- Agree on roles and responsibilities.
- Establish compatible policies, procedures, and other means to operate across agency boundaries.
- Develop mechanisms to monitor, evaluate, and report on results.
- Reinforce agency accountability for collaborative efforts through agency plans and reports.
- Reinforce individual accountability for collaborative efforts through performance management systems.

Question 2. How do we encourage investment, from both state government and the private sector, in high-speed rail?

Answer. One way to encourage state participation is for there to be a stable Federal funding stream. Another approach is to reduce funding silos in which Federal funds are often tied to a single transportation mode, which may limit the use of these funds to finance the greatest improvements in mobility.²

We have found that the assumption of some risk by the public sector could encourage private sector investment in passenger rail projects.³ We found that in the private sector, while firms have expressed interest in high-speed rail projects, without public sector commitment—both financial and political—they said their involvement and financing would be limited, due to the significant financial and ridership risks of such projects. Both current and terminated domestic high-speed rail project sponsors have sought private financing, but found it difficult to secure this investment, given these risks. Public private partnerships are one means foreign governments are seeking to share in the financial risks of their high-speed rail systems, and there is less risk for the private sector to either operate or manage the infrastructure. For example, in March 2009, we reported a public-private partnership contract scheme was under discussion in France, in which risks associated with financing, designing, building, and maintaining a high-speed rail line would be allocated to the private sector, which would receive a set payment for making the infrastructure available. In such an arrangement, the private sector, serving as the infrastructure manager, would not take on any ridership risk.

Question 3. What have been the major obstacles to the development of high-speed rail in our country?

Answer. Although high speed rail programs have existed prior to the Recovery Act, there has been no national plan nor stable and significant funding to guide the role of high-speed rail in the U.S. transportation system, whereas competing transportation modes, such as automobile and bus travel, cost less and have a long standing institutional framework for investment in the United States.

¹GAO, *Results Oriented Government: Practices that Can Enhance and Sustain Collaboration among Federal Agencies*, GAO-06-15 (Washington D.C., October 21, 2005).

²GAO, *Transportation Programs: Challenges Facing the Department of Transportation and Congress*, GAO-09-435T (Washington, D.C.: Mar. 10, 2009).

³GAO, *High-Speed Passenger Rail: Future Development Will Depend on Addressing Financial and Other Challenges and Establishing a Clear Federal Role*. GAO-09-317 (Washington D.C., March 19, 2009).

The high-speed rail proposals that exist today were not created from a structured Federal transportation planning process, but were initiated by varying groups of project sponsors that have included states, Amtrak, Federal agencies, and private companies. Because these proposals are developed in the absence of an established institutional framework, it is more difficult to attract funding and garner political and public support.

In addition to project sponsors, high-speed rail projects involve numerous stakeholders and jurisdictions, given that projects can span hundreds of miles and sometimes cross multiple states. These factors make reaching consensus on routes and other project decisions difficult. Some high-speed rail proposals have failed in part due to an inability to sustain the public and political support needed to carry a project through multiple political cycles and a lengthy development timeline, and due to the challenges in securing the high up-front costs for the projects. Initiatives in Texas and Florida both failed to overcome these challenges.

Question 4. What steps can the administration take to ensure that the Federal Government's plan for high-speed rail is sound and effective?

Answer. Benefits should be weighed against costs for all programs to ensure the highest value for Federal dollars can be gained. In order to maximize the value of any Federal investments in high-speed intercity passenger rail service, the FRA should invest in projects that have the highest chance of becoming economically viable. We have found that viable high-speed rail projects have trip lengths that are time and price competitive with other modes of transportation, have dense populations, have heavy travel demand and strained capacity in competing transportation modes. To be time-competitive with other modes, it also is likely that high-speed rail will need to run on dedicated tracks and not share track with freight or commuter services. Additionally, to be a viable transportation choice, high-speed rail service must be frequent, convenient, and safe.

Question 5. Has GAO had an opportunity to review FRA's Interim Program Guidance issued last Wednesday concerning high-speed rail funding? If not, would you follow-up with us with GAO's views, particularly any areas of concern that you believe warrant FRA's attention?

Answer. FRA's Interim Program Guidance met the requirements in the Recovery Act to establish funding guidelines for the Recovery Act's high-speed rail funding in a short time. Figuring out how best to develop high-speed and other intercity passenger rail programs in a short time now that there is significant Federal funding available will be a complex task. FRA officials told us that the program will continue to take shape as they work with stakeholders and as the agency gains the capacity to deal with the challenges of developing a high-speed rail program.

We do not see—and did not expect to see—resolution of the larger issues discussed in our March report. FRA officials told us that they largely agree with those assessments—that is, establishing clear Federal objectives, roles for all stakeholders, and identifying expected outcomes, and ensuring the reliability of ridership and other forecasts—and expect to begin working to those ends. We find this encouraging and are looking forward to seeing the fruits of FRA's efforts.

Question 6. What are some of the lessons learned from the Acela project that can be of benefit to future projects' successes?

Answer. The Acela program is the centerpiece of Amtrak's intercity passenger rail system. We found several lessons for developing high-speed rail lines in the U.S.⁴ As we found in the case of Amtrak and FRA management of Acela, long-term and comprehensive oversight is needed. In addition to managing short-term improvements and acquisitions, an operator must sufficiently address major infrastructure improvements needed to meet established trip-time goals. Furthermore, integration of stakeholder interests into planning and management as well as cooperation among stakeholders is needed to meet established service goals. This is important for any high-speed rail development off of the Northeast Corridor as many stakeholders (including commuter and freight rail operators and infrastructure owners and state and local governments) may be involved. Finally, sufficient oversight is needed from the Federal level, to adequately oversee an operator's management of a project and the use of Federal funds.

Question 7. What are your recommendations for ensuring the accuracy of ridership projections, and all other projections in each project's business plan, in order to ensure that the most viable projects are selected for funding assistance?

⁴GAO, *Intercity Passenger Rail: Amtrak's Management of Northeast Corridor Improvements Demonstrates Need for Applying Best Practices*, GAO-04-94 (Washington D.C., February 27, 2004).

Answer. Ridership and cost forecasts for transportation projects are often significantly optimistic, and different ridership forecasting methods may yield uncertain results. It is important for FRA to incorporate analytical tools and approaches to ensure the reliability of ridership and other forecasts used to determine the viability of high-speed rail projects and to support the need for Federal grant assistance. Obtaining forecasts from independent sources and subjecting forecasts to peer review are among ways to potentially increase the reliability of ridership and cost projections. Other ways to ensure more reliable projections from project sponsors include obligating state and local governments to share some of the risks of underestimated costs for those projects seeking Federal financial support, and conducting horizontal comparisons of projects—that is, using a standardized accounting system to measure the accuracy of project estimates of cost and demand.

Further, objectives, goals, and performance measures are the starting place for any endeavor as they force a clear delineation on what is to be achieved, provide a means for measuring progress and, ultimately, whether the desired outcomes are being achieved. Finally, decisionmakers are now making surface transportation investment decisions, including funding for high-speed rail, in a modal vacuum—that is, without considering a multimodal transportation system. Modal stovepipes hinder multimodal thinking and, consequently, not all transportation alternatives are weighed in the transportation planning process.⁵

RESPONSE TO WRITTEN QUESTIONS SUBMITTED BY HON. JOHN THUNE TO
SUSAN A. FLEMING

Question 1. Can you offer the Subcommittee, and FRA, specific suggestions to address your concerns about FRA's strategic plan?

Answer. Given the complexity, high cost, and long development time for high-speed rail projects, it is critical to first determine how high-speed rail fits into the national transportation system and establish a strategic vision and goals for such systems. This will establish the baseline for Federal involvement.

We think it is critical that a national vision of high-speed rail not focus on connecting the Nation by high-speed rail, but rather focus on the multimodal transportation system as a whole. It should identify where high-speed rail can have the most benefit in terms of expanding capacity, alleviating congestion, and reducing emissions. Our work shows that this would be in corridors and city pairs that are densely populated and roughly 100 to 500 miles apart and provide safe, efficient and frequent service.

Question 2. There are many examples of federally-financed transportation projects coming in way behind schedule and over budget. Based on your past work at the GAO, what steps do you think the Department needs to take to minimize the risk of overdue, over budget projects occurring in the high-speed rail program?

Answer. We have identified best practices that could provide a framework to effectively manage future large-scale intercity passenger rail infrastructure projects, which can also be applied to developing a high-speed rail program.⁶ These best practices include:

- comprehensive planning
- risk assessment and mitigation
- comprehensive financial management
- accountability and oversight, and
- incorporation of diverse stakeholders' interests.

These practices have proved effective in managing large-scale infrastructure projects and could assist in managing future projects such as the high-speed rail program.

Similarly, our work in the highway area may shed some light into reducing the risk that infrastructure projects come in behind schedule and over budget.⁷ We found a need for the Federal Highway Administration (FHWA) to link funding to outcome measures or performance goals so that the department can define a role

⁵ GAO, *Surface Transportation: Restructured Federal Approach Needed for More Focused, Performance-Based and Sustainable Programs*. GAO-08-400 (Washington D.C., March 6, 2008).

⁶ GAO, *Intercity Passenger Rail: Amtrak's Management of Northeast Corridor Improvements Demonstrates Need for Applying Best Practices*, GAO-04-94 (Washington D.C., February 27, 2004).

⁷ GAO, *Federal-Aid Highways: FHWA Needs a Comprehensive Approach to Improving Project Oversight*, GAO-05-173 (Washington, D.C., January 31, 2005).

and purpose to its oversight. We also found a need for FHWA to transform its workforce to meet an evolving oversight mission. We also found that as the number and complexity of FHWA's programs grew, the agency needed the ability to absorb new responsibilities. We also noted somewhat similar issues in the aviation area.⁸

Question 3. In your testimony, you mention that "To stay within financial or other constraints, project sponsors typically make trade-offs between cost and service characteristics." At what point do such trade-offs impede a project's likelihood of economic success?

Answer. The economic viability of high-speed rail is affected by a number of factors, including trade-offs between cost and service characteristics. The foreign high-speed rail systems we reviewed attributed their ability to achieve time-competitiveness, frequency, reliability, and safety to operating on dedicated track and having no at-grade highway or other crossings. Incremental projects on track shared with freight operators may be less expensive, but these tracks often cannot achieve the same types of travel time-competitiveness or reliability as dedicated track, which is not shared with other trains. Construction costs varied significantly among foreign countries we examined—ranging from around \$40 million to over \$140 million per route mile—due to the extent of infrastructure improvements needed, land costs, variable terrain, and safety requirements such as antiseismic safeguards. Costs of high-speed rail tend to be lower in corridors where right-of-way exists that can be used for rail purposes, and a relatively flat- and straight-alignment can be used, compared with corridors that require the acquisition of new rights-of-way, substantial tunneling, or bridges.

Question 4. What are the most important findings from your March 2009 high-speed rail study?

Answer. Developing high-speed rail in the U.S. is possible, but it is certainly not easy. We have found four factors necessary to establish high-speed intercity passenger rail service in the U.S. Recent federal actions indicate a shift in this country's commitment to high-speed rail. However, sustained Federal, state, local and private sector leadership and commitment will be needed in order to establish and sustain high-speed intercity passenger rail service.

Second, a strategic vision for high-speed rail, particularly in relation to its role in the Nation's transportation system, should be developed that clearly identifies potential objectives and goals and the roles of Federal and other stakeholders.

Third, and related to the strategic vision, the Department of Transportation needs to clearly identify the expected outcomes from the development of high-speed rail projects and define the performance measures that show whether these outcomes are being achieved.

Finally, reliable ridership and cost forecasts are critical factors in determining whether a high-speed rail in a particular corridor is potentially viable. FRA needs to take the lead to develop these forecasting methods.

Question 5. What are the lessons learned from studying high-speed rail in other countries?

Answer. In the countries we visited, high-speed rail lines are safe, reliable, and are designed to be time- and price-competitive with other transportation modes. In addition, government policies relative to other transportation modes contributed to the relative competitiveness of rail—which is a situation far different than the situation here in the U.S. For example, the highway corridor between Tokyo and Osaka is heavily tolled—costing over \$200 each way—which results in making the trip by car more expensive than it would be by train.

Next, there was a commitment and priority made by the national government to develop high-speed rail. This would not have occurred without significant and sustained financial investment by the national government. In France, Spain, and Japan, the central governments generally funded the majority of up-front construction costs of high-speed rail projects—often without the expectation that their investment will be recouped. This model, coupled with an intermodal perspective and national visions and goals, are key components influencing the successful development of high-speed rail systems in Europe and Asia.

Another lesson learned was that initial development focused on building one trunk line between two cities with very high populations and densities and an existing market of intercity travelers on other transportation modes. These lines (which include Paris-Lyon, Tokyo-Osaka, and Madrid-Seville) have been the most viable where rail revenues were sufficient to cover ongoing operations costs as well as to recoup at least some of the initial investment costs.

⁸GAO, *Federal Aviation Administration: Challenges Facing the Agency in Fiscal Year 2009 and Beyond*, GAO-08-460T (Washington D.C., February 7, 2008).

RESPONSE TO WRITTEN QUESTION SUBMITTED BY HON. JOHN D. ROCKEFELLER IV
TO TOM R. SKANCKE

Question. What challenges must we overcome to ensure high-speed rail on new and existing intercity corridors is competitive with other transportation modes?

Answer. Chairman Rockefeller, in my opinion, the biggest challenge we must overcome first is getting Congress to agree that high-speed rail is a modal choice. Then we move on from there. As a nation, we must agree, like we did with the interstate highway system, that high-speed rail is a viable means of transporting people and then make the necessary investment.

For the past half century, we have regulated our transportation programs so much that our systems are failing. The regulatory process for a New Starts can often times take up to 18 years and that does not compete well with other transportation modes. Just to get a project delivered is a barrier to entry for many cities and states.

Additionally, we cannot look at a high-speed rail network in 50–100 different pieces it must be a national system with 21st Century technology that can move America. We cannot have Texas and California with two separate systems. We need to treat the high-speed rail network as a national system, just like the interstate highway.

When it is all said and done, the biggest challenge is going to be to get a majority of Congress to agree that high-speed passenger rail should be competitive with other modes; and then the next challenge will be how it is funded. We need to create a reliable national system with a strong vision that has tremendous accountability factors built into the program. Not regulation which keeps us from building a system, but rather real accountability. We must restore “trust” to the highway trust fund first with a performance based highway and rail system then we can ask America to invest in high-speed rail. This is America, we created the interstate highway system and we can create a high-speed rail system that serves the people of this country. It can’t take 50 years to do it. Set the priority and then fund it.

RESPONSE TO WRITTEN QUESTION SUBMITTED BY HON. FRANK R. LAUTENBERG TO
TOM R. SKANCKE

Question. Transportation options are limited in many rural areas, a problem compounded when Amtrak was forced to cut back services because of underfunding. How can intercity passenger rail be better utilized to connect rural America?

Answer. Chairman Lautenberg, rural connectivity is critical to the future of our Nation’s sustainability. In order to connect rural America to urban America, we need a system that is predicable, reliable, and safe. Rural connectivity is going to require a vision our Nation can invest in. It will require a system that is truly high-speed, 21st Century technology where riders see results. If it takes less time to drive, passenger rail will not be the chosen mode. Additionally, like any rail project in this country our Nation will need to make passenger rail a priority. I believe we have set our rail systems up to fail because as a nation, we have not made passenger rail the high priority it should be. Highways have been the priority for the past half century and we need to shift our priorities. We need both . . . highways and passenger rail.

It is also going to take an incredible amount time and effort to educate the public about passenger rail and the benefits that come with it. Americans are so used to having their own individual mode of transportation and that needs to change.

Rural America is suffering as much as urban America. We need to fund the highway trust fund to the highest levels, restore faith, hope and accountability to the program, remove programmatic and regulatory barriers to entry so a national system can be designed and constructed in 10 years not 50 years.

WRITTEN QUESTION SUBMITTED BY HON. JOHN D. ROCKEFELLER IV TO
HON. ROBERT ECKELS

Question. As the Federal Railroad Administration noted in its strategic plan, some States lack the financial resources to make capital investments or take on potential rail operational expenses. How does Texas plan on funding the operational costs for new intercity passenger rail corridors? Is the State prepared to offer the financial support necessary to fund the long-term operational costs?

[The witness did not respond.]

WRITTEN QUESTION SUBMITTED BY HON. FRANK R. LAUTENBERG TO
HON. ROBERT ECKELS

Question. Transportation options are limited in many rural areas, a problem compounded when Amtrak was forced to cut back services because of underfunding. How can intercity passenger rail be better utilized to connect rural America?
[The witness did not respond.]

